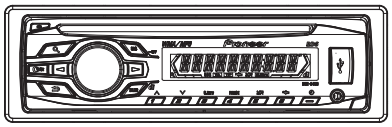
Pioneer

Service Manual



DEH-34UB/XNUC

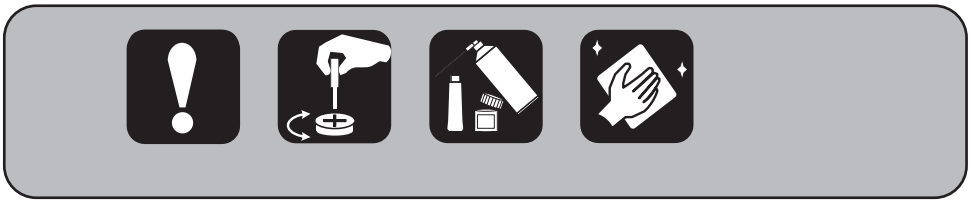
ORDER NO.
CRT4720

CD RDS RECEIVER

DEH-34UB/XNUC
DEH-3400UB/XNUC
DEH-3400UB/XNEW5
DEH-3450UB/XNES
DEH-3450UB/XNES1
DEH-3490UB/XNID

This service manual should be used together with the following manual(s):

Model No.	Order No.	Mech. Module	Remarks
CX-3287	CRT4759	S11.6STD	CD Mech. Module : Circuit Descriptions, Mech. Descriptions, Disassembly



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ⓒ**PIONEER CORPORATION 2011**

K-ZZZ JULY 2011 Printed in Japan

SAFETY INFORMATION

CAUTION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer.
Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.
Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty.
If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product may contain a chemical known to the State of California to cause cancer, or birth defects or other reproductive harm.
Health & Safety Code Section 25249.6 - Proposition 65

Where in a manufacturer's service documentation, for example in circuit diagrams or lists of components, a symbol is used to indicate that a specific component shall be replaced only by the component specified in that documentation for safety reasons, the following symbol shall be used:

⚠

● **Safety Precautions for those who Service this Unit.**
When checking or adjusting the emitting power of the laser diode exercise caution in order to get safe, reliable results.

Caution:

1. **During repair or tests, minimum distance of 13 cm from the focus lens must be kept.**
2. **During repair or tests, do not view laser beam for 10 seconds or longer.**

CAUTION:
USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.

CAUTION
This product is a class 1 laser product classified under the Safety of laser products, IEC 60825-1:2007, and contains a class 1M laser module. To ensure continued safety, do not remove any covers or attempt to gain access to the inside of the product. Refer all servicing to qualified personnel.

CLASS 1 LASER PRODUCT

CAUTION—CLASS 1M INVISIBLE LASER RADIATION WHEN OPEN, DO NOT VIEW DIRECTLY WITH OPTICAL INSTRUMENTS.

WARNING!

The AEL (accessible emission level)of the laser power output is less than CLASS 1 but the laser component is capable of emitting radiation exceeding the limit for CLASS 1.
A specially instructed person should do servicing operation of the apparatus.

Laser diode characteristics

Wave length : 785 nm to 814 nm

Maximum output : 1 190 µW(Emitting period : unlimited)

Additional Laser Caution

Transistors Q101 in PCB drive the laser diodes.
When Q101 is shorted between their terminals, the laser diodes will radiate beam.
If the top cover is removed with no disc loaded while such short-circuit is continued, the naked eyes may be exposed to the laser beam.

CAUTION

Danger of explosion if battery is incorrectly replaced.
Replaced only with the same or equivalent type recommended by the manufacture.
Discord used batteries according to the manufacture's instructions.

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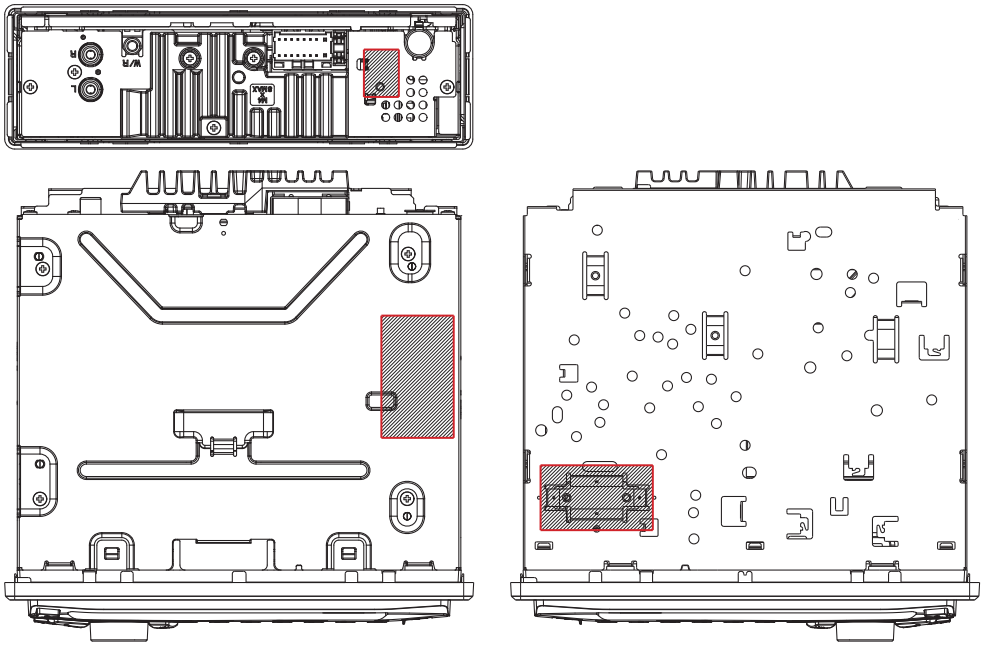
1. SERVICE PRECAUTIONS

1.1 SERVICE PRECAUTIONS

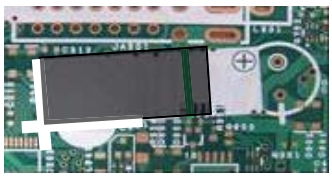
1. You should conform to the regulations governing the product (safety, radio and noise, and other regulations), and should keep the safety during servicing by following the safety instructions described in this manual.
2. Before disassembling the unit, be sure to turn off the power. Unplugging and plugging the connectors during power-on mode may damage the ICs inside the unit.
3. To protect the pickup unit from electrostatic discharge during servicing, take an appropriate treatment (shorting-solder) by referring to "the DISASSEMBLY".
4. After replacing the pickup unit, be sure to check the grating.
5. Be careful in handling ICs. Some ICs such as MOS type are so fragile that they can be damaged by electrostatic induction.
6. ▨ area and a heat sink becomes hot areas. Be careful not to burn yourself.

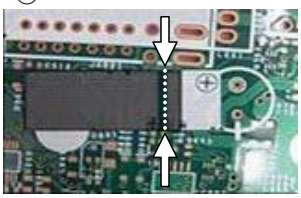


7. Software update
   The software of this product is stored in IC671.
   Please replace IC671 when making the version upgrade of software.

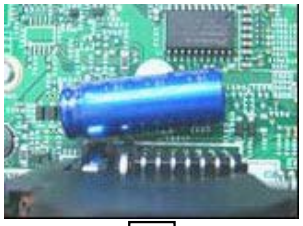
8. Capacitor Bond Lock (UC, EW5)
   Acetate Tape (GYH1026)
   ① Please stick acetate tape along white line.
   ② Please confirm line hiding with acetate tape.
      * length of tape : 24 ± 4 mm

① ②





9. Capacitor Bond Lock (ID, ES, ES1)
   Silicon Glue (GEM1017)
   Place the capacitor in the center of the silk print, and confirm it does not touch to the connector. Then, apply silicon glue.



OK

NG

1.2 NOTES ON SOLDERING

- For environmental protection, lead-free solder is used on the printed circuit boards mounted in this unit.
  Be sure to use lead-free solder and a soldering iron that can meet specifications for use with lead-free solders for repairs accompanied by reworking of soldering.

- Compared with conventional eutectic solders, lead-free solders have higher melting points, by approximately 40°C.
  Therefore, for lead-free soldering, the tip temperature of a soldering iron must be set to around 373°C in general, although the temperature depends on the heat capacity of the PC board on which reworking is required and the weight of the tip of the soldering iron.

Compared with eutectic solders, lead-free solders have higher bond strengths but slower wetting times and higher melting temperatures (hard to melt/easy to harden).

The following lead-free solders are available as service parts:
- Parts numbers of lead-free solder:
  GYP1006 1.0 in dia.
  GYP1007 0.6 in dia.
  GYP1008 0.3 in dia.

2. SPECIFICATIONS
2.1 SPECIFICATIONS

• DEH-3400UB/XNUC, DEH-34UB/XNUC

General

Power source ..... 14.4 V DC (10.8 V to 15.1 V allowable)
Grounding system..... Negative type
Maximum current consumption
..... 10.0 A
Backup current ..... 4.0 mA or less

Dimensions (W × H × D):
DIN
Chassis..... 178 mm × 50 mm × 165 mm (7 in. × 2 in. × 6-1/2 in.)
Nose ..... 188 mm × 58 mm × 16 mm (7-3/8 in.× 2-1/4 in.× 5/8 in.)
D
Chassis..... 178 mm × 50 mm × 165 mm (7 in.× 2 in.× 6-1/2 in.)
Nose ..... 170 mm × 46 mm × 16 mm (6-3/4 in.× 1-3/4 in.× 5/8 in.)
Weight ..... 1.1 kg (2.4 lbs)

Audio

Maximum power output ... 50 W × 4
Continuous power output
..... 22 W × 4 (50 Hz to 15 000 Hz, 5 % THD, 4 Ω load, both channels driven)
Load impedance ..... 4 Ω (4 Ω to 8 Ω allowable)
Preout maximum output level
..... 2.0 V
Tone controls:
Bass
Frequency..... 100 Hz
Gain ..... ±12 dB
Mid
Frequency..... 1 kHz
Gain ..... ±12 dB
Treble
Frequency..... 10 kHz
Gain ..... ±12 dB
Subwoofer (mono):
Frequency..... 50 Hz/63 Hz/80 Hz/100 Hz/125 Hz
Slope .....–18 dB/oct
Gain ..... +6 dB to –24 dB
Phase ..... Normal/Reverse

CD player

System ..... Compact disc audio system
Usable discs .....Compact disc
Signal-to-noise ratio ..... 94 dB (1 kHz) (IHF-A network)
Number of channels ..... 2 (stereo)
MP3 decoding format ..... MPEG-1 & 2 Audio Layer 3
WMA decoding format ..... Ver. 7, 7.1, 8, 9, 10, 11, 12 (2 ch audio)
(Windows Media Player)
WAV signal format .....Linear PCM & MS ADPCM
(Non-compressed)

USB

USB standard specification
..... USB 2.0 full speed
Maximum current supply
..... 1 A
USB Class ..... MSC (Mass Storage Class)
File system..... FAT12, FAT16, FAT32
MP3 decoding format ..... MPEG-1 & 2 Audio Layer 3
WMA decoding format ..... Ver. 7, 7.1, 8, 9, 10, 11, 12 (2 ch audio)
(Windows Media Player)
WAV signal format .....Linear PCM & MS ADPCM
(Non-compressed)

FM tuner

Frequency range..... 87.9 MHz to 107.9 MHz
Usable sensitivity ..... 9 dBf (0.8 µV/75 Ω, mono, S/N: 30 dB)
Signal-to-noise ratio ..... 72 dB (IHF-A network)

AM tuner

Frequency range..... 530 kHz to 1 710 kHz
Usable sensitivity ..... 25 µV (S/N: 20 dB)
Signal-to-noise ratio ..... 62 dB (IHF-A network)

CEA2006 Specifications

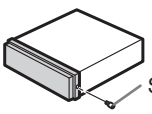
Power output ..... 14 W RMS × 4 Channels (4 Ω and ≦1 % THD+N)
S/N ratio ..... 91 dBA (reference: 1 W into 4 Ω)

Note

Specifications and the design are subject to modifications without notice.

Securing the front panel

The front panel can be secured with the supplied screw.



Screw
(BPZ20P060FTC) (UC)
(XXX7020) (EW5, ID, ES)

• **DEH-3400UB/XNEW5**

General

Power source ..... 14.4 V DC (10.8 V to 15.1 V allowable)
Grounding system ..... Negative type
Maximum current consumption
..... 10.0 A
Backup current ..... 4.0 mA or less
Dimensions (W × H × D):
DIN
Chassis ..... 178 mm × 50 mm × 165 mm
Nose ..... 188 mm × 58 mm × 16 mm
D
Chassis ..... 178 mm × 50 mm × 165 mm
Nose ..... 170 mm × 46 mm × 16 mm
Weight ..... 1.1 kg

Audio

Maximum power output ... 50 W × 4
Continuous power output
..... 22 W × 4 (50 Hz to 15 000 Hz, 5 % THD, 4 Ω load, both channels driven)
Load impedance ..... 4 Ω (4 Ω to 8 Ω allowable)
Preout maximum output level
..... 2.0 V
Tone controls:
Bass
Frequency ..... 100 Hz
Gain ..... ±12 dB
Mid
Frequency ..... 1 kHz
Gain ..... ±12 dB
Treble
Frequency ..... 10 kHz
Gain ..... ±12 dB
Subwoofer (mono):
Frequency ..... 50 Hz/63 Hz/80 Hz/100 Hz/125 Hz
Slope .....–18 dB/oct
Gain ..... +6 dB to –24 dB
Phase .....Normal/Reverse

CD player

System ..... Compact disc audio system
Usable discs .....Compact disc
Signal-to-noise ratio ..... 94 dB (1 kHz) (IEC-A network)
Number of channels ..... 2 (stereo)
MP3 decoding format ..... MPEG-1 & 2 Audio Layer 3
WMA decoding format ..... Ver. 7, 7.1, 8, 9, 10, 11, 12 (2 ch audio)
(Windows Media Player)
WAV signal format .....Linear PCM & MS ADPCM
(Non-compressed)

USB

USB standard specification
..... USB 2.0 full speed
Maximum current supply
..... 500 mA
USB Class ..... MSC (Mass Storage Class)
File system..... FAT12, FAT16, FAT32
MP3 decoding format ..... MPEG-1 & 2 Audio Layer 3
WMA decoding format ..... Ver. 7, 7.1, 8, 9, 10, 11, 12 (2 ch audio)
(Windows Media Player)
WAV signal format .....Linear PCM & MS ADPCM
(Non-compressed)

FM tuner

Frequency range ..... 87.5 MHz to 108.0 MHz
Usable sensitivity ..... 9 dBf (0.8 µV/75 Ω, mono, S/N: 30 dB)
Signal-to-noise ratio ..... 72 dB (IEC-A network)

MW tuner

Frequency range ..... 531 kHz to 1 602 kHz
Usable sensitivity ..... 25 µV (S/N: 20 dB)
Signal-to-noise ratio ..... 62 dB (IEC-A network)

LW tuner

Frequency range ..... 153 kHz to 281 kHz
Usable sensitivity ..... 28 µV (S/N: 20 dB)
Signal-to-noise ratio ..... 62 dB (IEC-A network)

Note

Specifications and the design are subject to modifications without notice.

• **DEH-3450UB/XNES, XNES1, DEH-3490UB/XNID**

General

Rated power source .....14.4 V DC
(allowable voltage range: 12.0 V to 14.4 V DC)
Grounding system.....Negative type
Maximum current consumption
..... 10.0 A
Backup current ..... 4.0 mA or less

Dimensions (W × H × D):
DIN
Chassis..... 178 mm × 50 mm × 165 mm
Nose ..... 188 mm × 58 mm × 16 mm
D
Chassis..... 178 mm × 50 mm × 165 mm
Nose ..... 170 mm × 46 mm × 16 mm
Weight ..... 1.1 kg

Audio

Maximum power output ... 50 W × 4
Continuous power output
..... 22 W × 4 (50 Hz to 15 000 Hz, 5 % THD, 4 Ω load, both channels driven)
Load impedance ..... 4 Ω (4 Ω to 8 Ω allowable)
Preout maximum output level
..... 2.0 V
Tone controls:
Bass
Frequency..... 100 Hz
Gain ..... ±12 dB
Mid
Frequency..... 1 kHz
Gain ..... ±12 dB
Treble
Frequency..... 10 kHz
Gain ..... ±12 dB
Subwoofer (mono):
Frequency..... 50 Hz/63 Hz/80 Hz/100 Hz/125 Hz
Slope .....–18 dB/oct
Gain ..... +6 dB to –24 dB
Phase ..... Normal/Reverse

CD player

System .....Compact disc audio system
Usable discs .....Compact disc
Signal-to-noise ratio ..... 94 dB (1 kHz) (IEC-A network)
Number of channels ..... 2 (stereo)
MP3 decoding format .....MPEG-1 & 2 Audio Layer 3
WMA decoding format ..... Ver. 7, 7.1, 8, 9, 10, 11, 12 (2 ch audio)
(Windows Media Player)
WAV signal format .....Linear PCM & MS ADPCM
(Non-compressed)

USB

USB standard specification
..... USB 2.0 full speed
Maximum current supply
..... 1 A
USB Class ..... MSC (Mass Storage Class)
File system..... FAT12, FAT16, FAT32
MP3 decoding format .....MPEG-1 & 2 Audio Layer 3
WMA decoding format ..... Ver. 7, 7.1, 8, 9, 10, 11, 12 (2 ch audio)
(Windows Media Player)
WAV signal format .....Linear PCM & MS ADPCM
(Non-compressed)

FM tuner

Frequency range ..... 87.5 MHz to 108.0 MHz
Usable sensitivity ..... 9 dBf (0.8 µV/75 Ω, mono, S/N: 30 dB)
Signal-to-noise ratio ..... 72 dB (IEC-A network)

MW tuner

Frequency range ..... 531 kHz to 1 602 kHz (9 kHz)
530 kHz to 1 640 kHz (10 kHz)
Usable sensitivity ..... 25 µV (S/N: 20 dB)
Signal-to-noise ratio ..... 62 dB (IEC-A network)

SW tuner

Frequency range ..... 2 300 kHz to 7 735 kHz
(2 300 kHz to 2 495 kHz, 2 940 kHz to 4 215 kHz, 4 540 kHz to 5 175 kHz, 5 820 kHz to 6 455 kHz, 7 100 kHz to 7 735 kHz)
9 500 kHz to 21 975 kHz
(9 500 kHz to 10 135 kHz, 11 580 kHz to 12 215 kHz, 13 570 kHz to 13 870 kHz, 15 100 kHz to 15 735 kHz, 17 500 kHz to 17 985 kHz, 18 015 kHz to 18 135 kHz, 21 340 kHz to 21 975 kHz)
Usable sensitivity ..... 28 µV (S/N: 20 dB)
Signal-to-noise ratio ..... 62 dB (IEC-A network)

Note

Specifications and the design are subject to modifications without notice.

2.2 DISC/CONTENT FORMAT

3. BASIC ITEMS FOR SERVICE

3.1 CHECK POINTS AFTER SERVICING

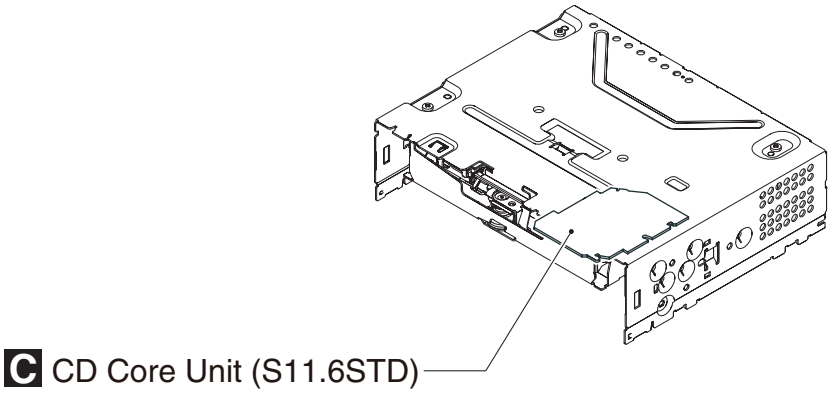
To keep the product quality after servicing, please confirm following check points.

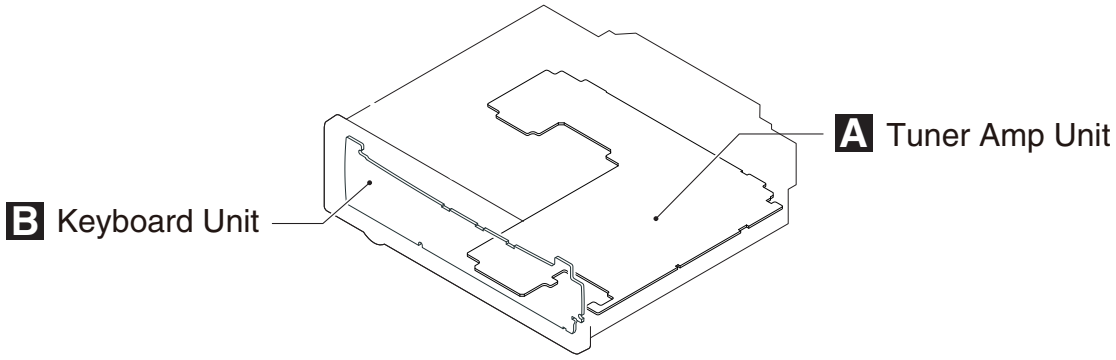
No.		Procedures	Item to be confirmed
1		Confirm whether the customer complain has been solved. If the customer complain occurs with the specific media, use it for the operation check.	The customer complain must not be reappeared. Display, audio and operations must be normal.
2	CD	Play back a CD. (Track search)	No malfunction on display, audio and operation.
3	FM/AM tuner	Check FM/AM tuner action. (Seek, Preset) Switch band to check both FM and AM.	Display, audio and operations must be normal.
4		Check whether no disc is inside the product.	The media used for the operating check must be ejected.
5		Appearance check	No scratches or dirt on its appearance after receiving it for service.

See the table below for the items to be checked regarding audio:

Item to be checked regarding audio
Distortion
Noise
Volume too low
Volume too high
Volume fluctuating
Sound interrupted

3.2 PCB LOCATIONS





A:DEH-34UB/XNUC
B:DEH-3400UB/XNUC
C:DEH-3400UB/XNEW5
D:DEH-3450UB/XNES
E:DEH-3450UB/XNES1
F:DEH-3490UB/XNID

Unit Number : QWM3310(A,B)
: QWM3309(C)
: QWM3311(D,E,F)
Unit Name : Tuner Amp Unit
Unit Number : (A,B,D,E,F)
: (C)
Unit Name : Keyboard Unit
Unit Number : CWX4023
Unit Name : CD Core Unit (S11.6STD)

3.3 JIGS LIST

● **Jigs List**

Name	Jig No.	Remarks
16P FFC	GGD1310	Tuner Amp Unit - CD Core Unit
Test Disc	TCD-782	Checking the grating
L.P.F.		Checking the grating (Two pieces)
Acetate Tape	GYH1026	Capacitor Bond Lock
Silicon Glue	GEM1017	Capacitor Bond Lock

● **Grease List**

Name	Grease No.	Remarks
Grease	GEM1024	CD Mechanism Module
Grease	GEM1038	CD Mechanism Module
Grease	GEM1043	CD Mechanism Module
Grease	GEM1045	CD Mechanism Module

3.4 CLEANING

Before shipping out the product, be sure to clean the following portions by using the prescribed cleaning tools:

Portions to be cleaned	Cleaning tools
CD pickup lenses	Cleaning liquid : GEM1004 Cleaning paper : GED-008

A

B

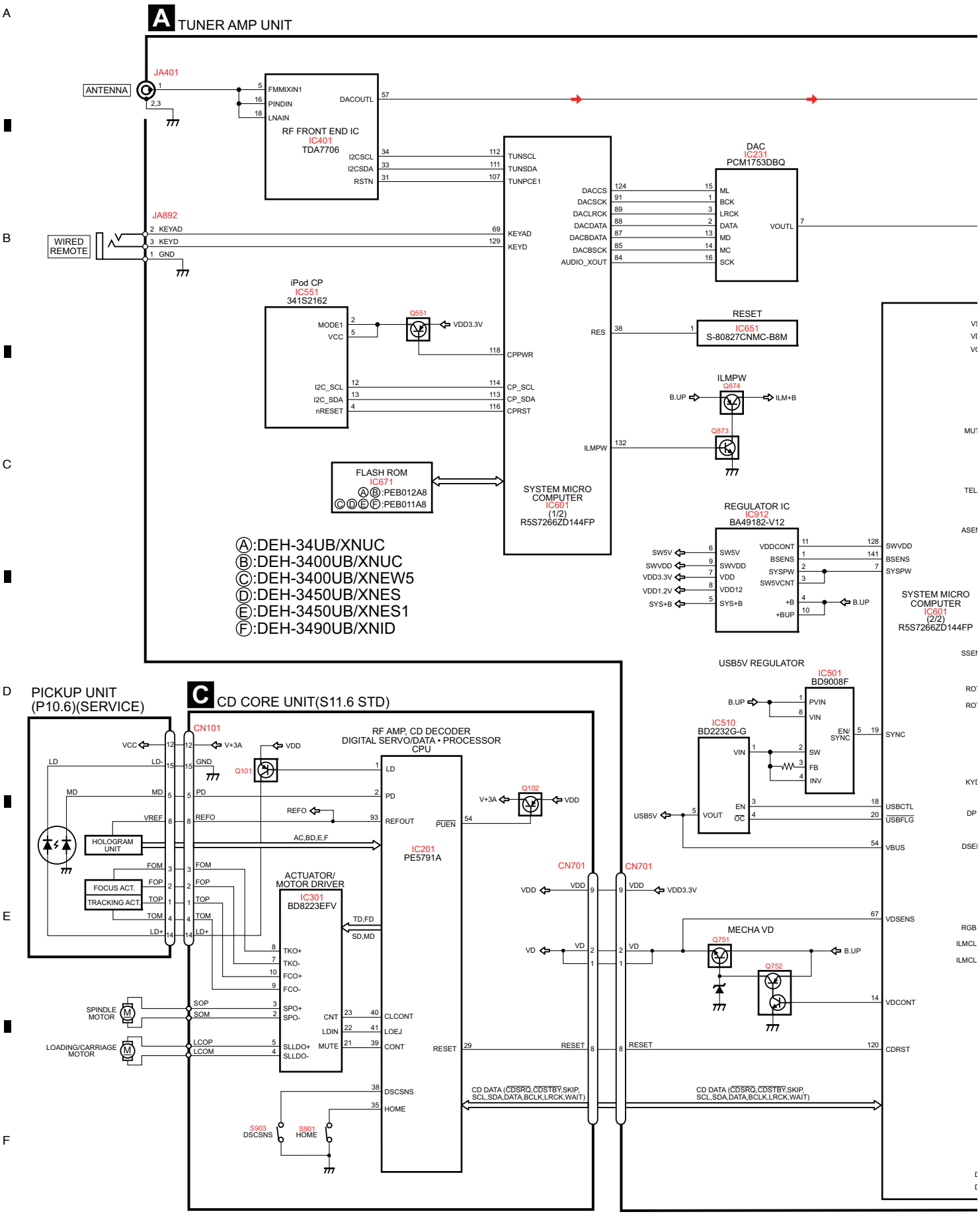
C

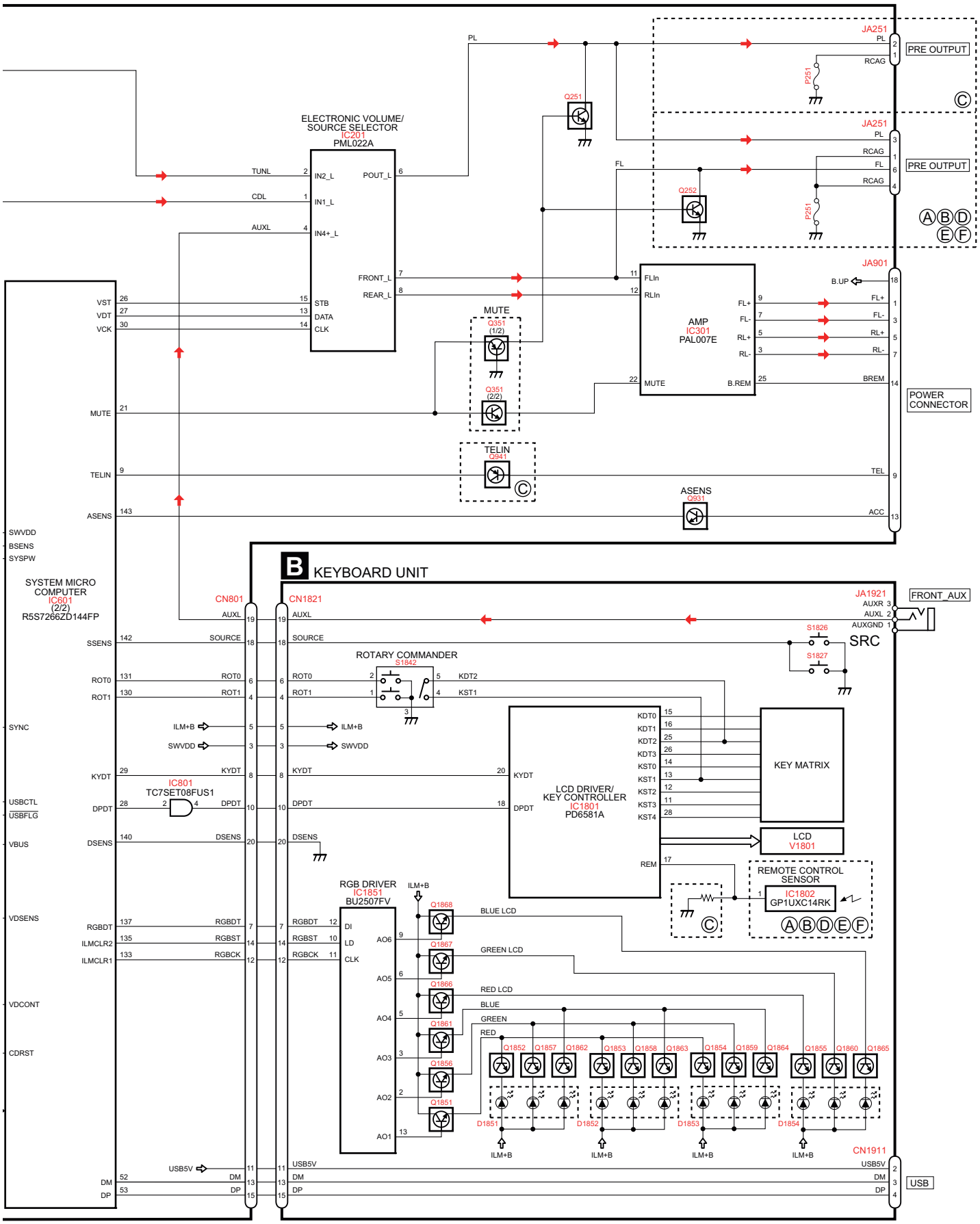
D

E

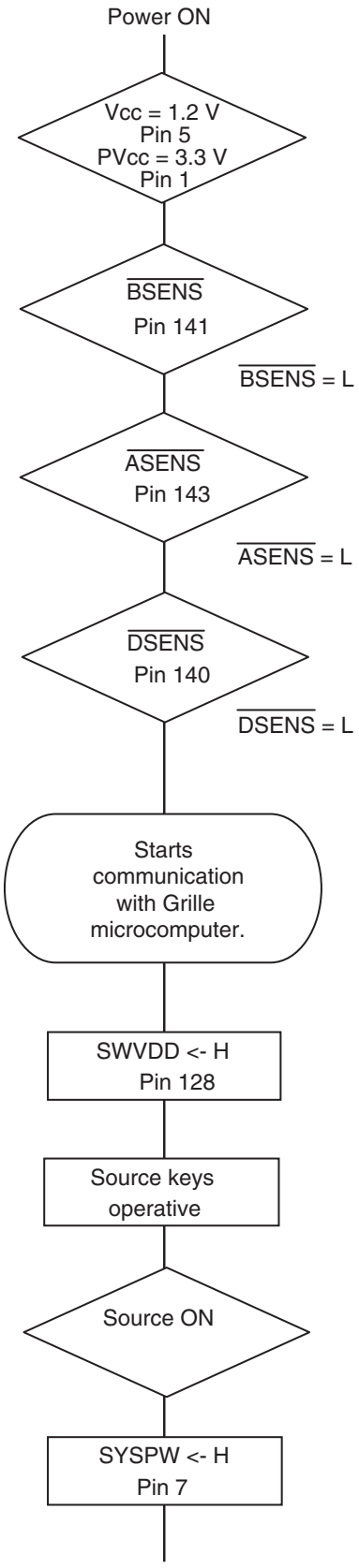
F

4. BLOCK DIAGRAM

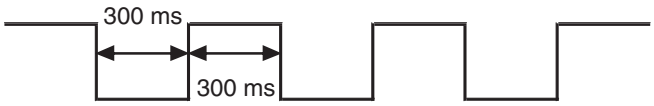



ELECTRONIC VOLUME/
SOURCE SELECTOR
IC201
PML022A
TUNL
CDL
AUXL
IN2_L
IN1_L
IN4+_L
POUT_L
FRONT_L
REAR_L
STB
DATA
CLK
PL
FL
Q251
Q252
P251
JA251
PRE OUTPUT
RCAG
MUTE
Q351
(1/2)
(2/2)
AMP
IC301
PAL007E
FLIn
RLIn
MUTE
B.REM
B.UP
FL+
FL-
RL+
RL-
BREM
JA901
POWER
CONNECTOR
TELIN
Q941
TEL
ASENS
Q931
ACC
VST
VDT
VCK
SWVDD
BSENS
SYSPW
SYSTEM MICRO
COMPUTER
IC601
(2/2)
R5S7266ZD144FP
SSENS
ROT0
ROT1
SYNC
KYDT
USBCTL
USBFLG
VBUS
DPDT
DSENS
VDSENS
RGBDT
ILMCLR2
ILMCLR1
VDCONT
CDRST
DM
DP
USB5V
B
KEYBOARD UNIT
CN801
CN1821
AUXL
SOURCE
ROTARY COMMANDER
S1842
KDT2
KST1
ILM+B
IC801
TC7SET08FUS1
LCD DRIVER/
KEY CONTROLLER
IC1801
PD6581A
KDT0
KDT1
KDT2
KDT3
KST0
KST1
KST2
KST3
KST4
REM
KEY MATRIX
LCD
V1801
JA1921
AUXR
AUXGND
FRONT_AUX
S1826
S1827
SRC
REMOTE CONTROL
SENSOR
IC1802
GP1UXC14RK
RGB DRIVER
IC1851
BU2507FV
DI
LD
CLK
AO6
AO5
AO4
AO3
AO2
AO1
Q1868
Q1867
Q1866
Q1861
Q1856
Q1851
BLUE LCD
GREEN LCD
RED LCD
BLUE
GREEN
RED
Q1852
Q1857
Q1862
Q1853
Q1858
Q1863
Q1854
Q1859
Q1864
Q1855
Q1860
Q1865
D1851
D1852
D1853
D1854
CN1911
USB

5. DIAGNOSIS
5.1 OPERATIONAL FLOWCHART



Completes power-on operation.
(After that, proceed to each source operation)



In case of the above signal, the communication with Grille microcomputer may fail.
If the time interval is not 300 msec, the oscillator may be defective.

5.2 ERROR CODE LIST

● ERROR CODES

If a CD memory device is inoperable, or operation of such media is stopped by an error, the error mode is established and a cause of the error is displayed by an error code. Indication of error codes is intended to reduce the number of calls from customers and facilitate failure analysis and repair work in servicing.

(1) DISPLAY METHOD

If "0xFD" error mode is displayed in CD MODE (CD MODE area for display), an error code will be displayed in the MIN (minute display) and SEC (second display) areas.

The same code is displayed in the MIN and SEC areas.
The TNO area is blank (#0FFH), as it conventionally was.

- Display example of the head unit
  Depending on the display capability of LCDs, the display format varies, as shown below. XX denotes an error number.
  Note: In a case of an OEM product, the error display format is subject to the specifications used by the equipment manufacturer.

8-digit display	6-digit display	4-digit display
ERROR-xx	ERR-xx	E-xx

(2) LIST OF CD ERROR CODES (Error Mode: 0xFD)

Code	Classification	Error code to be displayed	Details and possible causes
07	Servo	TOC reading NG	TOC information cannot be read. --> The partial disk or TOC content is illegal.
10	Servo	Carriage Home NG	The pickup cannot move toward the inner track. The CRG cannot move from the inner track. --> Defective HOME SW; Failure in CRG movement.
11	Servo	Focus NG	Focusing not available --> Disc placed upside-down; Stains on the disc; excessive vibration.
12	Servo	Spindle Lock NG Subcode NG RF-amp NG	Spindle not locked. Subcode not readable. Proper RF AMP gain not obtained. --> Defective spindle; Scratches or stains on the disc; excessive vibration. --> A CD-R/RW disc that does not contain data loaded, or in a rare case, disc placed upside-down. --> RF signal error.
15	Servo	RF NG	The digital signal from the disc cannot be detected. --> A CD-R/RW disc that does not contain data loaded.
17	Servo	Setup NG	The laser output cannot be adjusted. Focus can be easily lost. --> Scratches or stains on the disc; excessive vibration.
30	Servo	Search Time Out	Failed to reach a target address. And, the search became a timeout. --> Carriage/Tracking error; Scratches on the disc; Stains on the disc
50	Mechanism	Load NG Eject NG	Disc loading/ejection not completed --> A foreign object inserted in the mechanism; Disc jammed.
51	Mechanism	Failure in retried turning for ejection	Disc could not be ejected even after disc turning had been retried. --> A foreign object inserted in the mechanism; Disc jammed.

NOTES

- Indications of error codes are available only during disc operations, because CD operations are unavailable if a mechanical error is generated.
- If the TOC cannot be read, It stops because of error 07.
- If you design a new head unit, be sure to use one of the display formats indicated in "Display example of the head unit."
- The 2 high-order digits of an error code denote the main classification, shown below.

code	classification
0x	Servo-related errors
1x	
3x	
5x	Mechanism-related errors

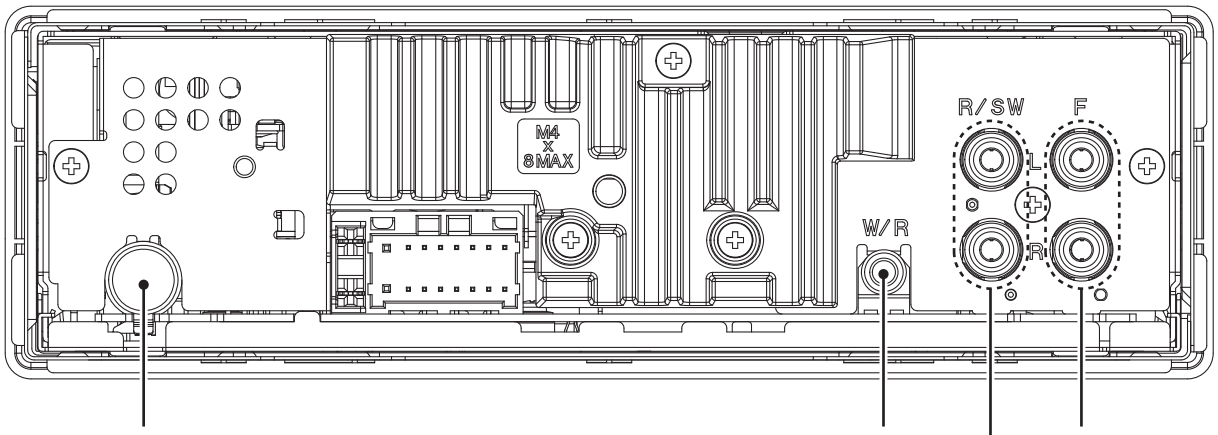
- How to restore from each error is shown below.

Servo-related errors(0X, 1X, 3X) : Servo-related errors CD Off, Eject, ACC Off, Back-up Off, Communication reset, Reset
Load NG/Eject NG(50) : Reload, Eject, ACC Off, Back-up Off, Communication reset, Reset
Failure in retried turning for ejection : CD On, Eject, ACC Off, Back-up Off, Communication reset, Reset

USB storage device/iPod

Message	Cause	Action
NO DEVICE	When plug and play is off, no USB storage device or iPod is connected.	• Turn the plug and play on. • Connect a compatible USB storage device/iPod.
FRMT READ	Sometimes there is a delay between the start of playback and when you start to hear any sound.	Wait until the message disappears and you hear sound.
NO AUDIO	There are no songs.	Transfer the audio files to the USB storage device and connect.
	The connected USB storage device has security enabled.	Follow the USB storage device instructions to disable the security.
SKIPPED	The connected USB storage device contains files embedded with Windows Media™ DRM 9/10.	Play an audio file not embedded with Windows Media DRM 9/10.
PROTECT	All the files in the USB storage device are embedded with Windows Media DRM 9/10.	Transfer audio files not embedded with Windows Media DRM 9/10 to the USB storage device and connect.
N/A USB	The USB device connected to is not supported by this unit.	• Connect a USB Mass Storage Class compliant device. • Disconnect your device and replace it with a compatible USB storage device.
CHECK USB	The USB connector or USB cable has short-circuited.	Check that the USB connector or USB cable is not caught in something or damaged.
	The connected USB storage device consumes more than 500 mA (maximum allowable current).	Disconnect the USB storage device and do not use it. Turn the ignition switch to OFF, then to ACC or ON and then connect only compliant USB storage devices.
	The iPod operates correctly but does not charge.	Make sure the connection cable for the iPod has not shorted out (e.g., not caught in metal objects). After checking, turn the ignition switch OFF and back ON, or disconnect the iPod and reconnect.
ERROR-19	Communication failed.	Perform one of the following operations. –Turn the ignition switch OFF and back ON. –Disconnect the USB storage device. –Change to a different source. Then, return to the USB source.
	iPod failure.	Disconnect the cable from the iPod. Once the iPod's main menu is displayed, reconnect the iPod and reset it.
ERROR-23	USB storage device was not formatted with FAT12, FAT16 or FAT32.	USB storage device should be formatted with FAT12, FAT16 or FAT32.
ERROR-16	The iPod firmware version is old.	Update the iPod version.
	iPod failure.	Disconnect the cable from the iPod. Once the iPod's main menu is displayed, reconnect the iPod and reset it.
STOP	There are no songs in the current list.	Select a list that contains songs.
NOT FOUND	No related songs.	Transfer songs to the iPod.

5.3 CONNECTOR FUNCTION DESCRIPTION

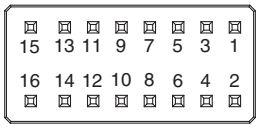


ANTENNA

WIRED REMOTE CONTROL

FRONT OUTPUT (Except DEH-3400UB/XNEW5)

REAR OUTPUT or SUBWOOFER OUTPUT



1	FL+	9	NC
2	FR+	10	NC
3	FL-	11	NC
4	FR-	12	NC
5	RL+	13	ACC
6	RR+	14	B.REM
7	RL-	15	B.UP
8	RR-	16	GND

6. SERVICE MODE
6.1 DISPLAY TEST MODE

The information such as the system microcomputer version is checked.

[How to enter Test mode]

Press " ① " and " ③ " keys simultaneously to start resetting.

[Operation key]

Operation key	Processing	Remarks
① + ③	Enter display test mode Switch to next test mode	

[Test items]

Start display test mode.
(Press " ① " + " ③ " keys simultaneously to start resetting.)

	Key Illumination	Icon
* Initial condition	Off	All off
	On (an initial value)	All off
System Version information is displayed.	On (an initial value or setting value of default menu)	All off
Display is normally updated Product operation is performed as usual, in appearance.	On (an initial value or setting value of default menu)	On (lighting condition of normal times)
Display update is stopped The screen gets still when entering this item.	On (an initial value or setting value of default menu)	On (state when entering test mode)

S $ $ $ $ # # # 14SEG

S $ $ $ $ # # # 5*5Dot

$ PD number — For PEA010A, "010A" is displayed

System microcomputer version — For Ver.7.01, "701" is displayed

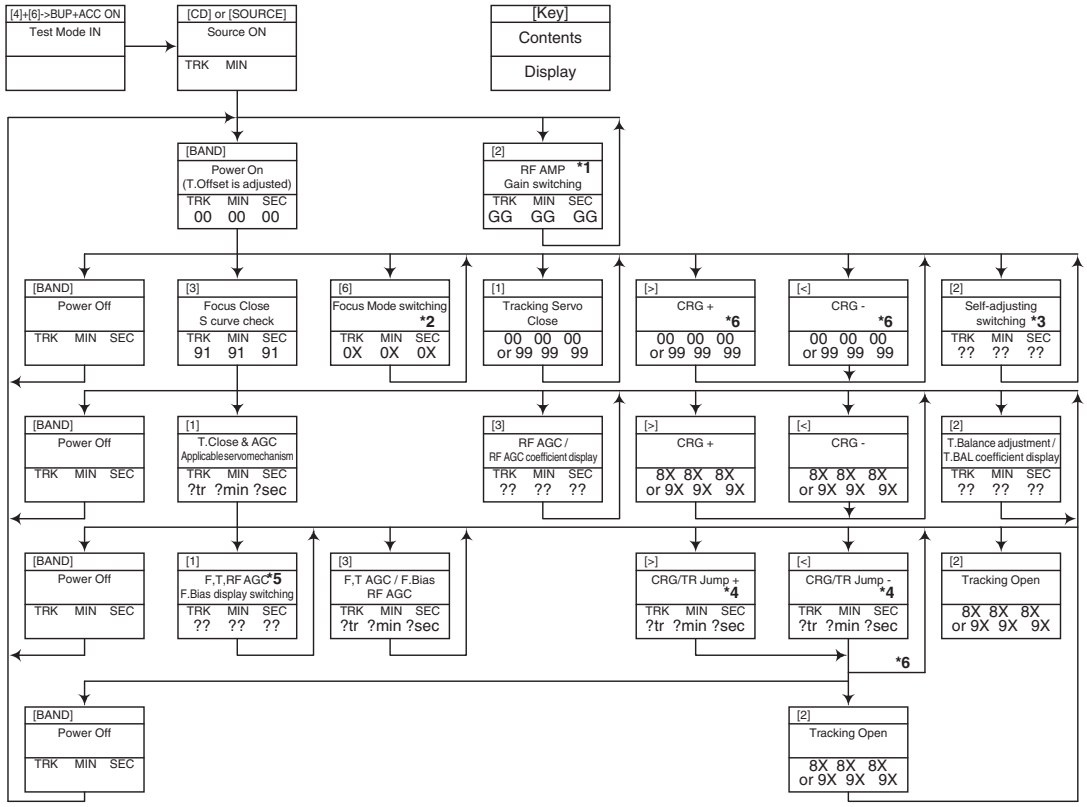
Switching to next display
by pressing " ① " + " ③ " keys simultaneously.

Switching to next display
by pressing " ① " + " ③ " keys simultaneously.

Switching to next display
by pressing " ① " + " ③ " keys simultaneously.

6.2 CD TEST MODE

● Flow Chart



*1) TYP (TRK MIN SEC) → + 6 dB ($^{TRK}06^{MIN}06^{SEC}06$) → + 12 dB ($^{TRK}12^{MIN}12^{SEC}12$)

*2) Focus Close ($^{TRK}00^{MIN}00^{SEC}00$ / ($^{TRK}99^{MIN}99^{SEC}99$)) → S. Curve ($^{TRK}01^{MIN}01^{SEC}01$) → F EQ measurement setting ($^{TRK}02^{MIN}02^{SEC}02$)

*3) F.Offset Display → RF.Offset → T.Offset Display → Switch to the order of the original display

*4) 100TR Jump

*5) TRK/MIN/SEC → F.AGC → T.AGC Gain → F.Bias → RF AGC

*6) CRG motor voltage = 2 [V]

[Key]	Operation Test Mode
[BAND]	Power On/Off
[>]	CRG + / TR Jump + (Direction of the external surface)
[<]	CRG - / TR Jump - (Direction of the internal surface)
[1]	T. CLS & AGC & Applicable servomechanism / AGC,AGC display setting
[2]	RF Gain switching / Offset adjustment display / T.Balance adjustment / T. Open
[3]	F. Close,S. Curve / Rough Servo and RF AGC / F,T,RF AGC
[6]	F. Mode switching / Tracking Close

- After the [EJECT] key is pressed keys other than the [EJECT] key should not be pressed, until disc ejection is complete.
- When the key [2] or [3] is pressed during the Focus Search, the power supply should be immediately turned off (otherwise the lens sticks to Wall, causing the actuator to be damaged).
- In the case of 100TR Jump, the mechanism shall be set to the Tracking Close mode when the key is released.
- When the power is turned on/off the gain of the RFAMP is reset to 0 dB. At the same time all the self-adjusting values shall return to the default setting.
- Do not do Tracking Servo Close before doing Focus Servo Close. (Because the overcurrent flows)

7. DISASSEMBLY

While the photograph shown is slightly different from this model in shape, the disassembly procedure is the same.

● Removing the Panel Assy (Fig.1)

1 Remove the two hooks.

2 Remove the two hooks and then remove the Panel Assy.

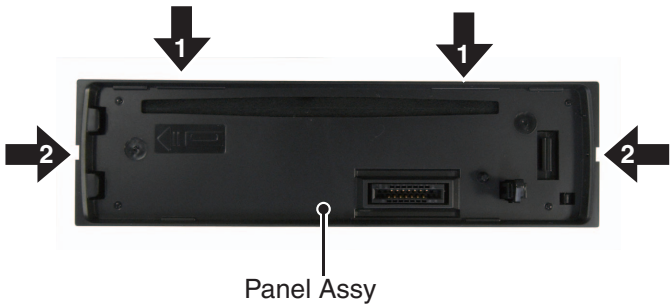


Fig.1

● Removing the CD Mechanism Module (Fig.2, 3, 4)

1 Remove the screw.

2 Remove the two screws.

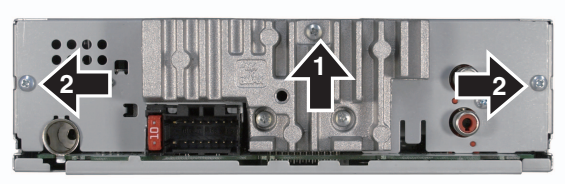


Fig.2

The CD Mechanism Module side is made a bottom.

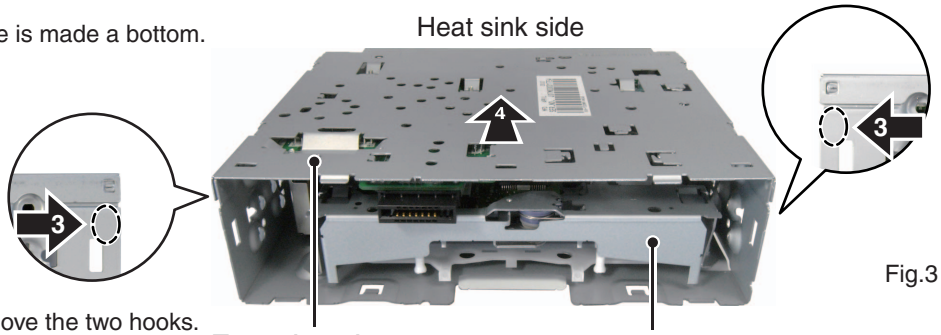


Fig.3

3 Push the area and remove the two hooks.

4 Slide the Tuner Amp Assy in the direction of the arrow and then remove the hooks of upper and lower.

Lift off the Tuner Amp Assy from the Heat sink side.

5 The Tuner Amp Assy is fixed into the ditch.

6 Disconnect the FFC and then remove the CD Mechanism Module.

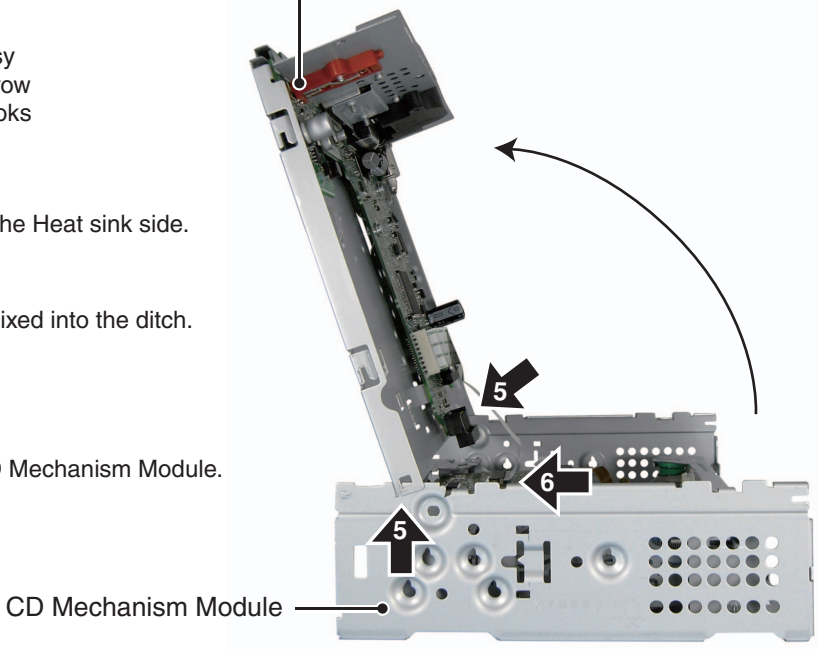


Fig.4

● Removing the Tuner Amp Unit (Fig.5)

1 Remove the two screws.

2 Remove the two screws.

3 Straighten the tabs at two locations indicated and then remove the Tuner Amp Unit.

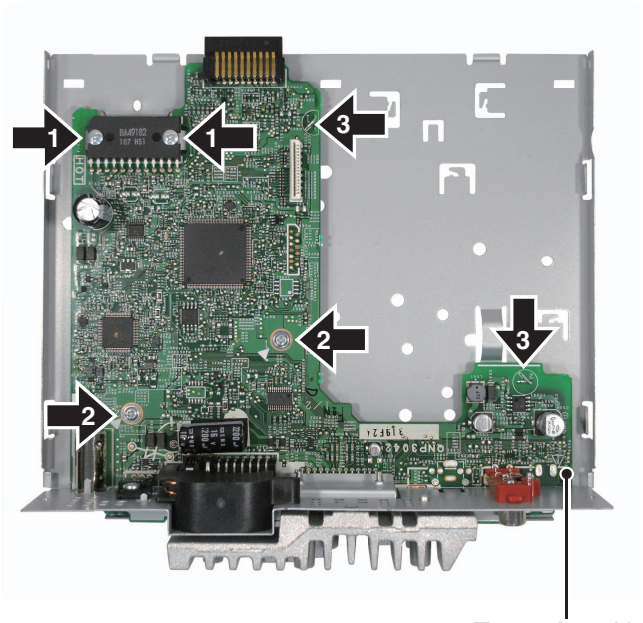


Fig.5

● Attention of removing (Fig.6)

Don't remove this screws excluding the dismantlement of the CD Mechanism Module.

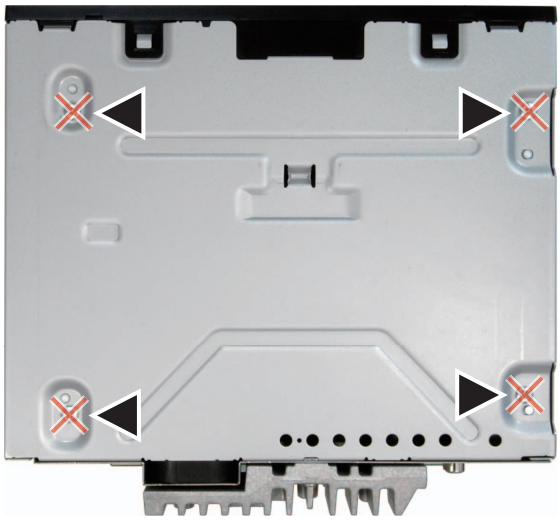


Fig.6

● Disassembling the Panel Part (Fig.7, 8)

1. Remove the arm while bending the rib of the panel upward.

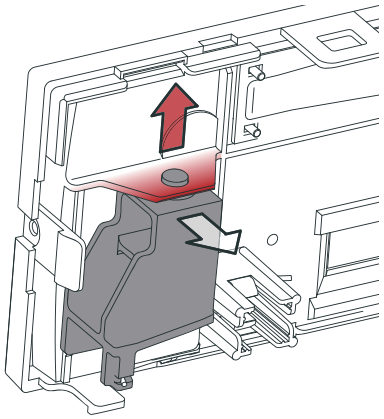


Fig.7

2. Press the upside hook and the bottom side hook of the button at the same time, and pull out the button.

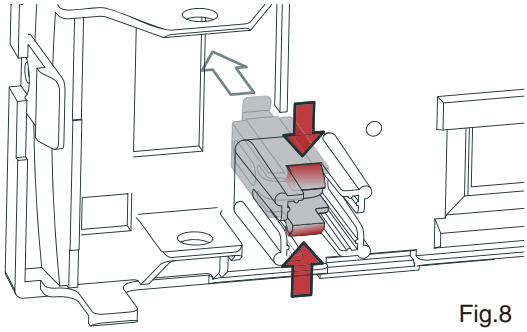


Fig.8

● Assembling the Panel Part (Fig.9, 10, 11)

1. Attach the button from the front side of the panel.

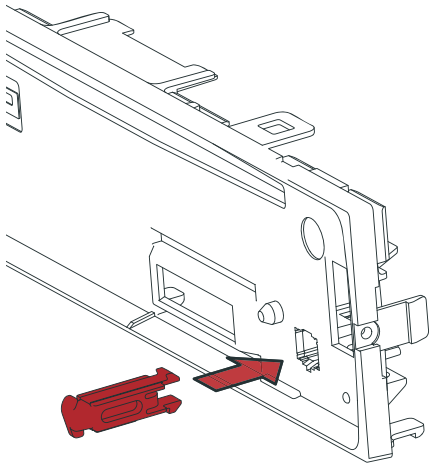


Fig.9

2. Attach the spring to the arm as shown in the figure.

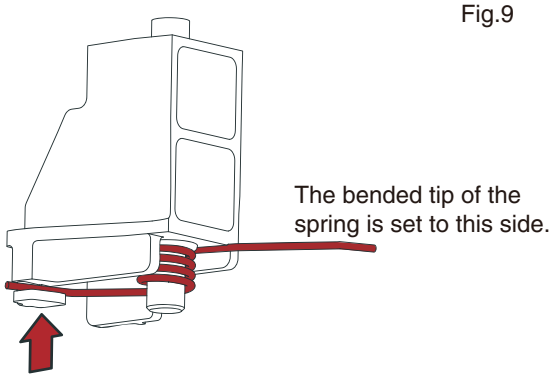


Fig.10

3. Fit the spring in the groove at the position shown in the figure.
4. Fit the boss on the lower side of the arm in the lower hole of the panel, and then warp the rib on the panel in the direction shown in the figure and fit the boss of the arm in the panel.

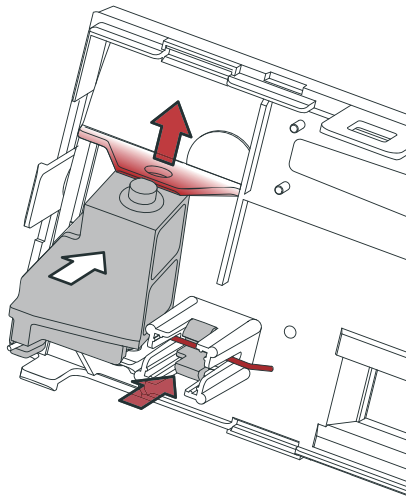
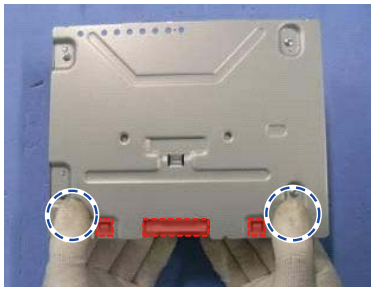


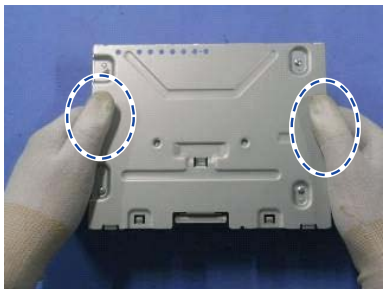
Fig.11

● How to carry the mecha unit

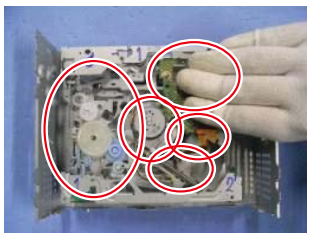
1. Hold the designated points (shown with dashed lines) of the upper chassis and the front/rear bracket.
2. Be careful not to hold the solid line portions or the CRG mecha part or insert foreign substances, to prevent distortion.
3. When holding the sides of the upper chassis, do not apply excessive force to prevent distortion. (Approx. 8N or less)

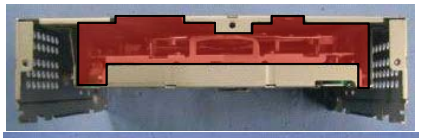
Handling OK

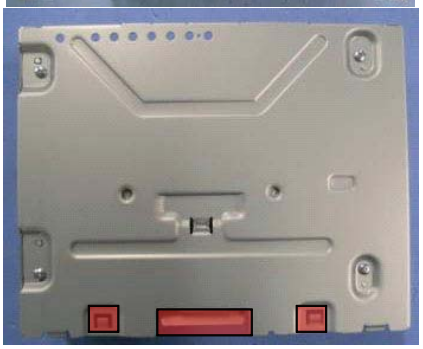


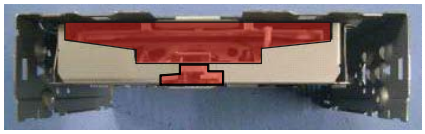


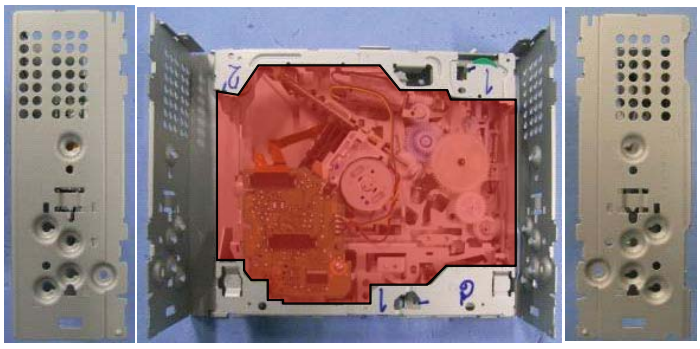
Handling NG











● How to remove the PU unit

1. Create an empty-clamp state according to “How to create empty clamp state (motor drive)”.
2. Hook the feeding screw biasing spring to a tentative hooking portion (Fig 2b). Be careful not to get injured by the spring edge.
3. Hold the PU at the position A as shown in Fig 1. Slide the PU as far as possible toward the holder in the feeding screw so that a joint on the outer end of the feeding screw is loosened.
4. As shown in Fig 3, move the rear end of the feeding screw laterally and then upward, to remove it from the outer holder.
5. Lift the PU unit to disengage it from Part B of the chassis (Fig 4), and remove the PU unit.

(Cautions) When re-installing the PU, be sure to first nip the chassis and the PU unit (Fig 4) at the position B.
Also, make sure to fully hook the feeding screw biasing spring (Fig 2a).
Please follow the service manual for adjustment of the PU unit after the re-installation.

Fig 1

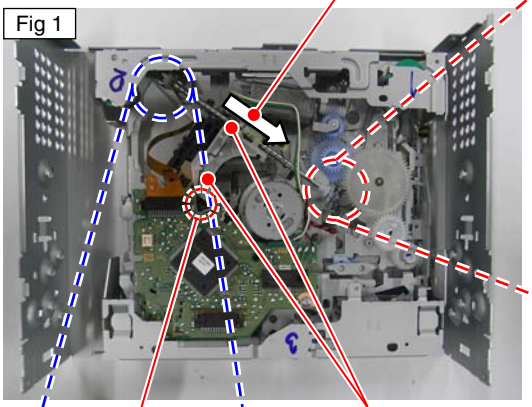
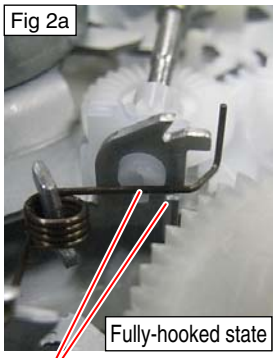


Fig 2a



The spring is below a resin flange and is built inside the sheet metal bending.

Fig 2b

Fig 3

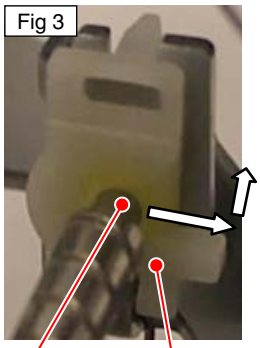
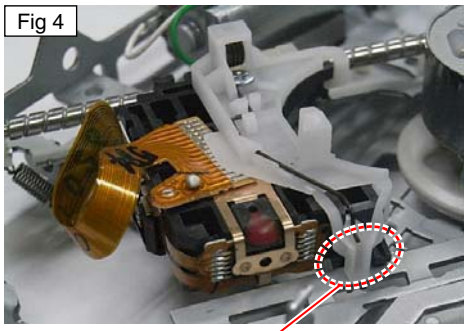


Fig 4



[Incorrect built-in state]
The chassis is not nipped between the PU case and the PU rack.

8. EACH SETTING AND ADJUSTMENT
8.1 CD ADJUSTMENT

1) Cautions on adjustments

• In this product the single voltage (3.3 V) is used for the regulator. The reference voltage is the REFO1 (1.65 V) instead of the GND.
If you should mistakenly short the REFO1 with the GND during adjustment, accurate voltage will not be obtained, and the servo's misoperation will apply excessive shock to the pickup. To avoid such problems:
a. Do not mix up the REFO1 with the GND when connecting the (-) probe of measuring instruments. Especially on an oscilloscope, avoid connecting the (-) probe for CH1 to the GND.
b. In many cases, measuring instruments have the same potential as that for the (-) probe. Be sure to set the measuring instruments to the floating state.
c. If you have mistakenly connected the REFO1 to the GND, turn off the regulator or the power immediately.

• Before mounting and removing filters or leads for adjustment, be sure to turn off the regulator.

• For stable circuit operation, keep the mechanism operating for about one minute or more after the regulator is turned on.

• In the test mode, any software protections will not work. Avoid applying any mechanical or electrical shock to the mechanism during adjustment.

• The RFAGC and RFO signals with a wide frequency range are easy to oscillate. When observing the signals, insert a resistor of 1k ohms in series.

• The load and eject operation is not guarantied with the mechanism upside down. If the mechanism is blocked due to mistaken eject operation, reset the product or turn off and on the ACC to restore it.

2) Test mode

This mode is used to adjust the CD mechanism module.

• To enter the test mode.
[4] + [6] -> BUP + ACC ON

• To exit from the test mode.
Turn off the ACC and back up.

Notes:
a. During ejection, do not press any other keys than the EJECT key until the loaded disc is ejected.
b. If you have pressed the (→) key or (←) key during focus search, turn off the power immediately to protect the actuator from damage caused by the lens stuck.
c. For the TR jump modes except 100TR, the track jump operation will continue even if the key is released.
d. For the CRG move and 100TR jump modes, the tracking loop will be closed at the same time when the key is released.
e. When the power is turned off and on, the jump mode is reset to the single TR (91), the RF amp gain is set to 0 dB, and the auto-adjustment values are reset to the default settings.

8.2 CHECKING THE GRATING AFTER CHANGING THE PICKUP UNIT

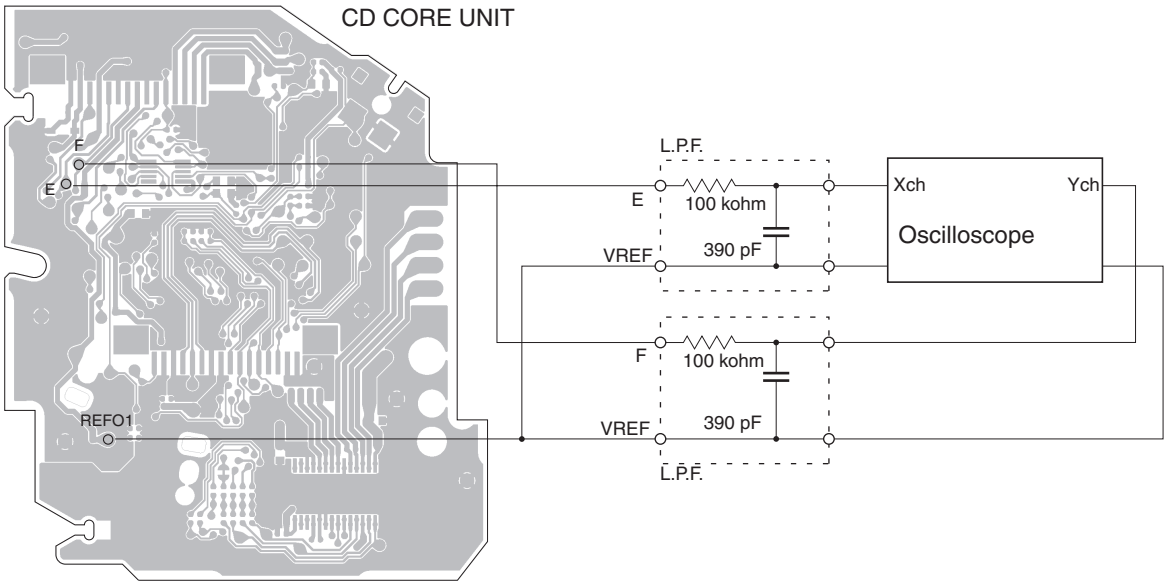
- **Note :**
  The grating angle of the PU unit cannot be adjusted after the PU unit is changed. The PU unit in the CD mechanism module is adjusted on the production line to match the CD mechanism module and is thus the best adjusted PU unit for the CD mechanism module. Changing the PU unit is thus best considered as a last resort. However, if the PU unit must be changed, the grating should be checked using the procedure below.

- **Purpose :**
  To check that the grating is within an acceptable range when the PU unit is changed.

- **Symptoms of Mal-adjustment :**
  If the grating is off by a large amount symptoms such as being unable to close tracking, being unable to perform track search operations, or taking a long time for track searching.

- **Method :**

• Measuring Equipment	• Oscilloscope, Two L.P.F.
• Measuring Points	• E, F, REFO1
• Disc	• TCD-782
• Mode	• TEST MODE

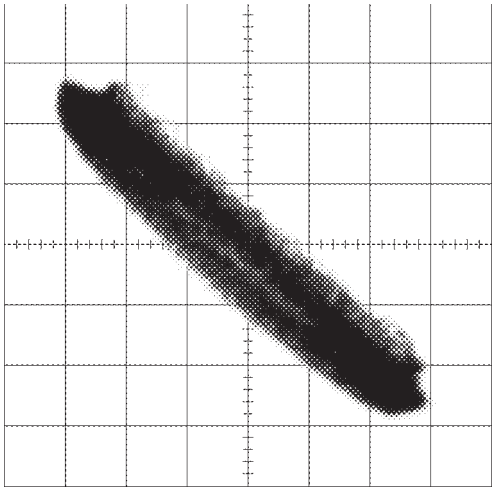


- **Checking Procedure**
  1. In test mode, load the disc and switch the 3 V regulator on.
  2. Using the right and left buttons, move the PU unit to the innermost track.
  3. Press key 3 to close focus, the display should read "91". Press key 2 to implement the tracking balance adjustment the display should now read "81". Press key 3. The display will change, returning to "81" on the fourth press.
  4. As shown in the diagram above, monitor the LPF outputs using the oscilloscope and check that the phase difference is within 75°. Refer to the photographs supplied to determine the phase angle.
  5. If the phase difference is determined to be greater than 75° try changing the PU unit to see if there is any improvement. If, after trying this a number of times, the grating angle does not become less than 75° then the mechanism should be judged to be at fault.
- **Note**
  Because of eccentricity in the disc and a slight misalignment of the clamping center the grating waveform may be seen to "wobble" (the phase difference changes as the disc rotates). The angle specified above indicates the average angle.
- **Hint**
  Reloading the disc changes the clamp position and may decrease the "wobble".

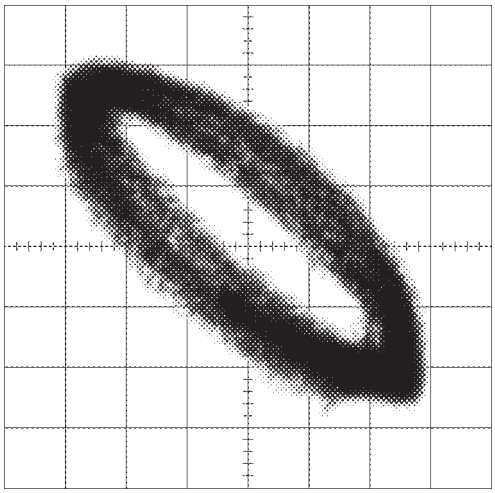
Grating waveform

Ech -> Xch 20 mV/div, AC
Fch -> Ych 20 mV/div, AC

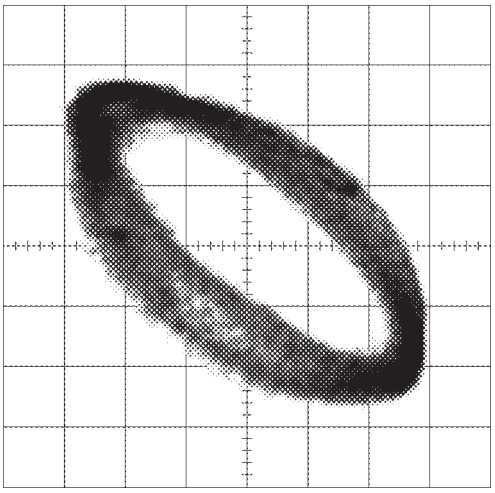
0 degrees



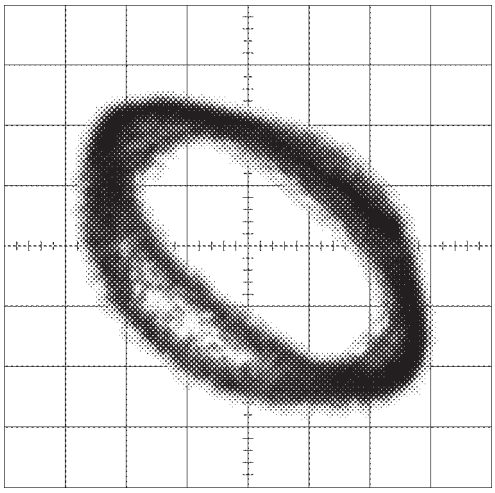
30 degrees



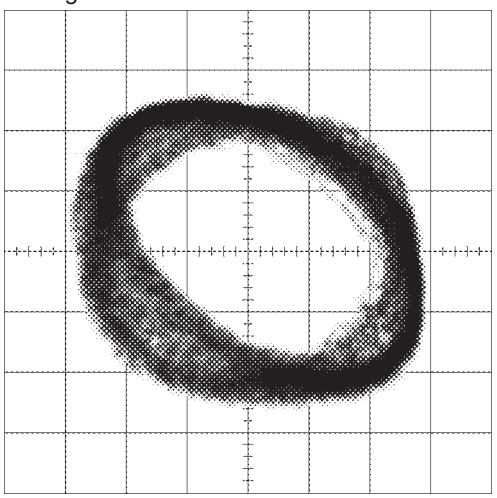
45 degrees



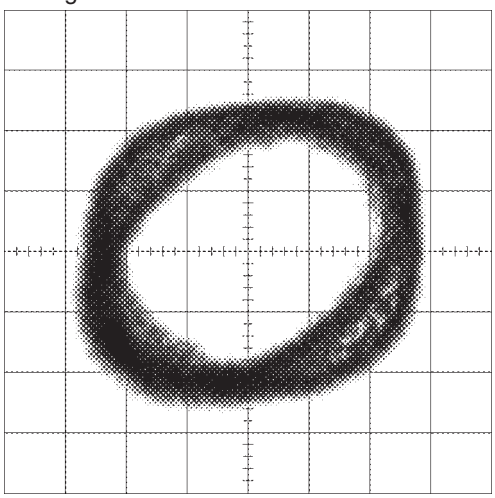
60 degrees



75 degrees



90 degrees



8.3 PCL OUTPUT CONFIRMATION

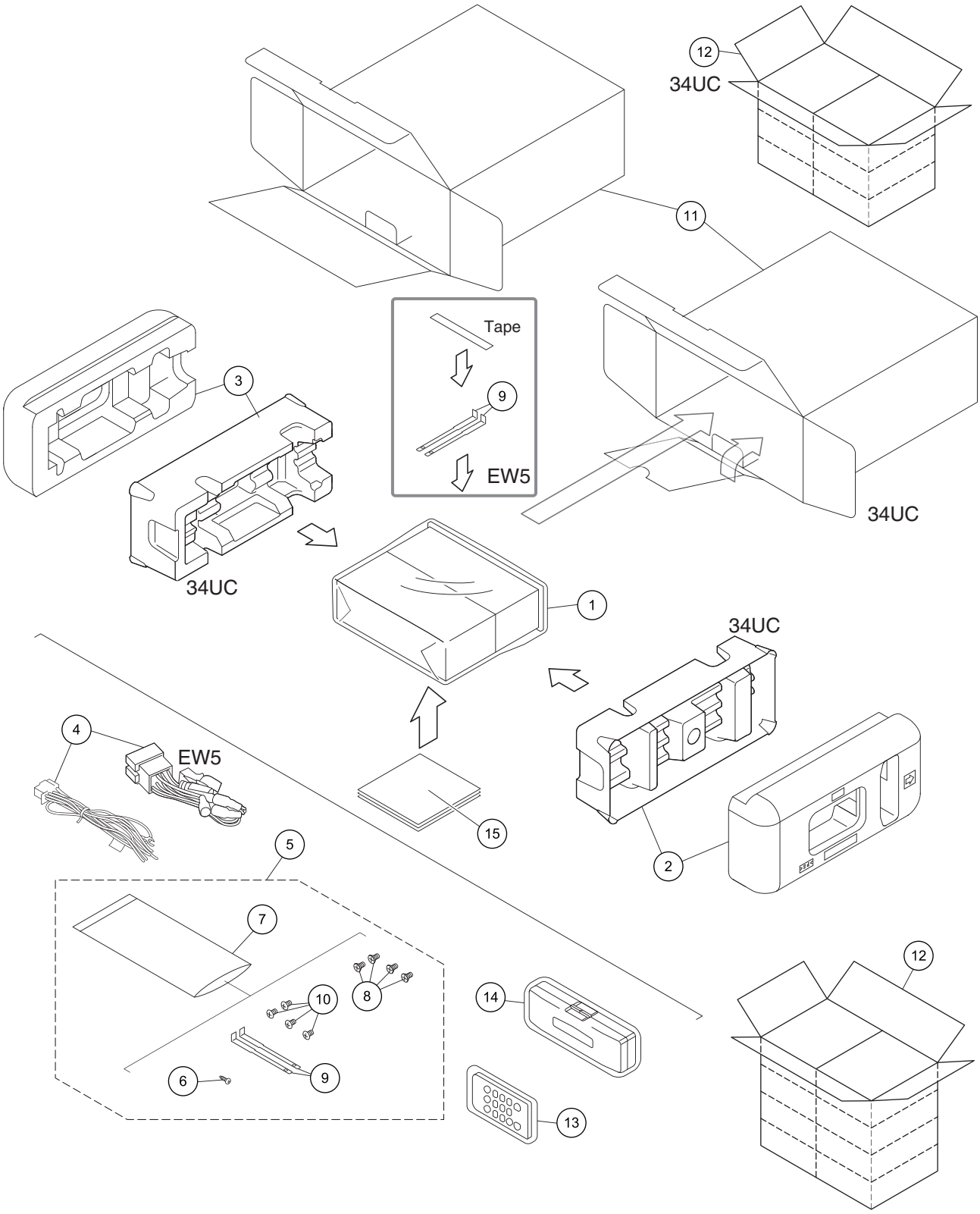
● PCL output

With the TESTIN (22 pin) status of IC601 to be “H”, it is shifted to PCL Output Test mode after reset started.
Check that square wave of 600.0 kHz is output from PCL (8 Pin) of IC601.
If clock signal is out of this range, this resonator (X602) must be changed for a new one.

9. EXPLODED VIEWS AND PARTS LIST

NOTES : • *Parts marked by " * " are generally unavailable because they are not in our Master Spare Parts List.*
• *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
• *Screw adjacent to▽ mark on the product are used for disassembly.*
• *For the applying amount of lubricants or glue, follow the instructions in this manual. (In the case of no amount instructions,apply as you think it appropriate.)*

9.1 PACKING



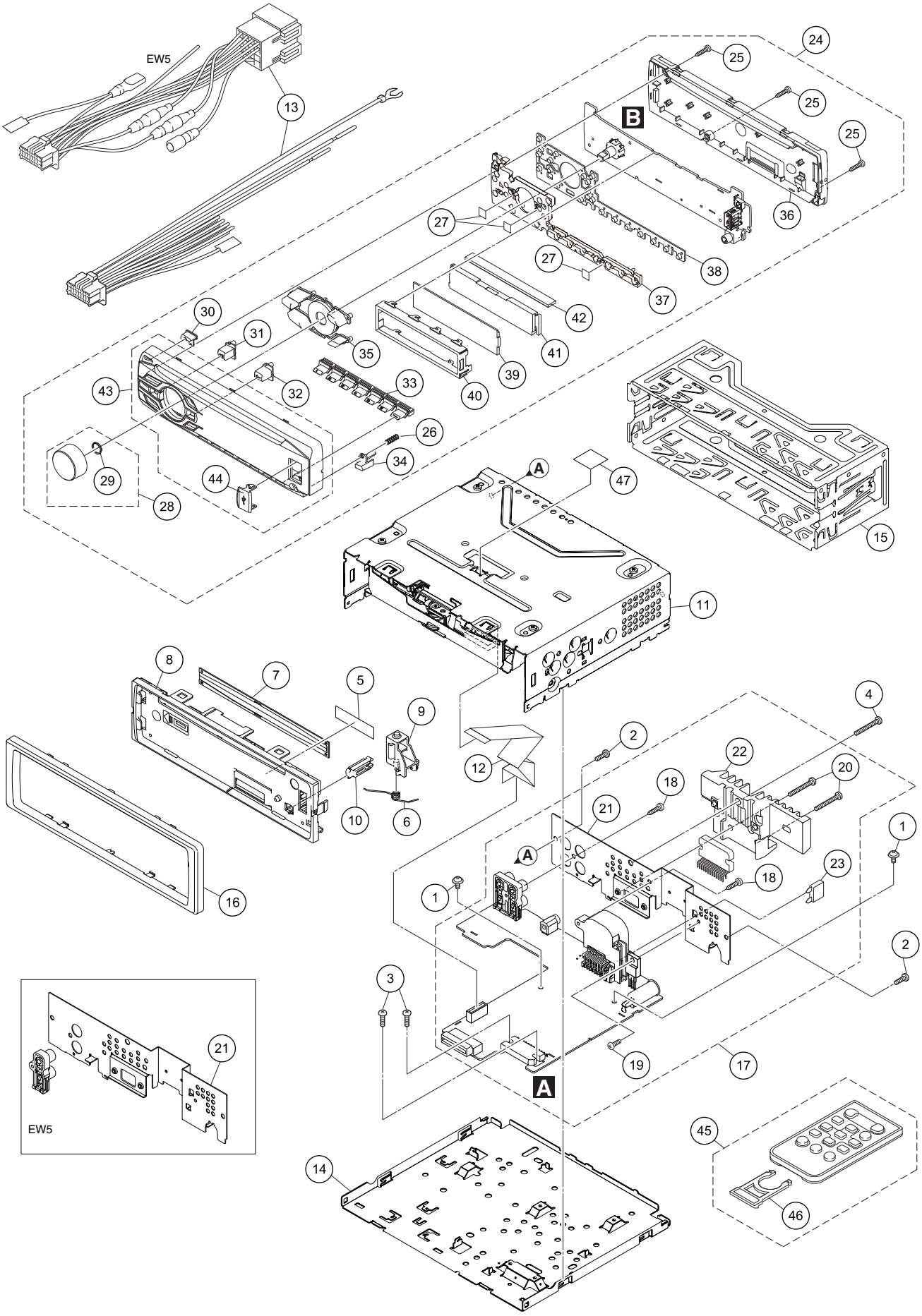
PACKING SECTION PARTS LIST

Mark	No.	Description	DEH-34UB/ XNUC	DEH-3400UB/ XNUC	DEH-3400UB/ XNEW5	DEH-3450UB/ XNES	DEH-3450UB/ XNES1	DEH-3490UB/ XNID
	1	Polyethylene Bag	CEG1173	CEG1173	QEG3001	QEG3001	QEG3001	QEG3001
	2	Protector	CHP4103	QHP3016	QHP3016	QHP3016	QHP3016	QHP3016
	3	Protector	CHP4104	QHP3016	QHP3016	QHP3016	QHP3016	QHP3016
	4	Cord Assy	QDP3013	QDP3013	QDP3012	QDP3013	QDP3013	QDP3013
*	5	Accessory Assy	QEA3008	QEA3008	Not used	QEA3009	QEA3009	QEA3009
	6	Screw	BPZ20P060FTC	BPZ20P060FTC	Not used	Not used	Not used	Not used
	7	Polyethylene Bag	CEG1160	CEG1160	Not used	CEG1160	CEG1160	CEG1160
	8	Screw	CRZ50P090FTC	CRZ50P090FTC	Not used	Not used	Not used	Not used
	9	Handle	QNC3021	QNC3021	QNC3021	QNC3021	QNC3021	QNC3021
	10	Screw	TRZ50P080FTC	TRZ50P080FTC	Not used	TRZ50P080FTC	TRZ50P080FTC	TRZ50P080FTC
	11	Unit Box	QHG3145	QHG3143	QHG3139	QHG3140	QHG3142	QHG3146
	12	Contain Box	QHL3145	QHL3143	QHL3139	QHL3140	QHL3142	QHL3146
	13	Card Type RC Unit	QXE1047	QXE1047	Not used	QXE1047	QXE1047	QXE1047
	14	Case Assy	Not used	Not used	QXA3129	QXA3129	QXA3129	QXA3129
	15-1	Owner's Manual	QRD3099	QRD3099	QRD3098	QRD3100	QRD3100	QRB3195
*	15-2	Warranty Card	QRY3001	QRY3001	CRY1316	Not used	CRY1250	CRY1304
*	15-3	Service Network	Not used	Not used	Not used	Not used	CRY1251	CRY1305

Owner's Manual,Installation Manual

Part No.	Language
QRD3099	English, French, Spanish(Espanol)
QRD3098	English, French, Italian, Spanish(Espanol), German, Dutch, Russian
QRD3100	English, Spanish(Espanol), Portuguese(B), Traditional Chinese, Arabic, Persian
QRB3195	English

9.2 EXTERIOR


EW5
13
24
25
25
25
B
36
27
27
38
37
42
41
39
40
30
31
35
33
32
43
26
34
29
44
28
A
47
15
11
8
7
5
9
12
10
6
16
4
2
22
20
18
21
1
18
23
1
2
3
19
17
A
EW5
21
45
14
46

(1) EXTERIOR SECTION PARTS LIST

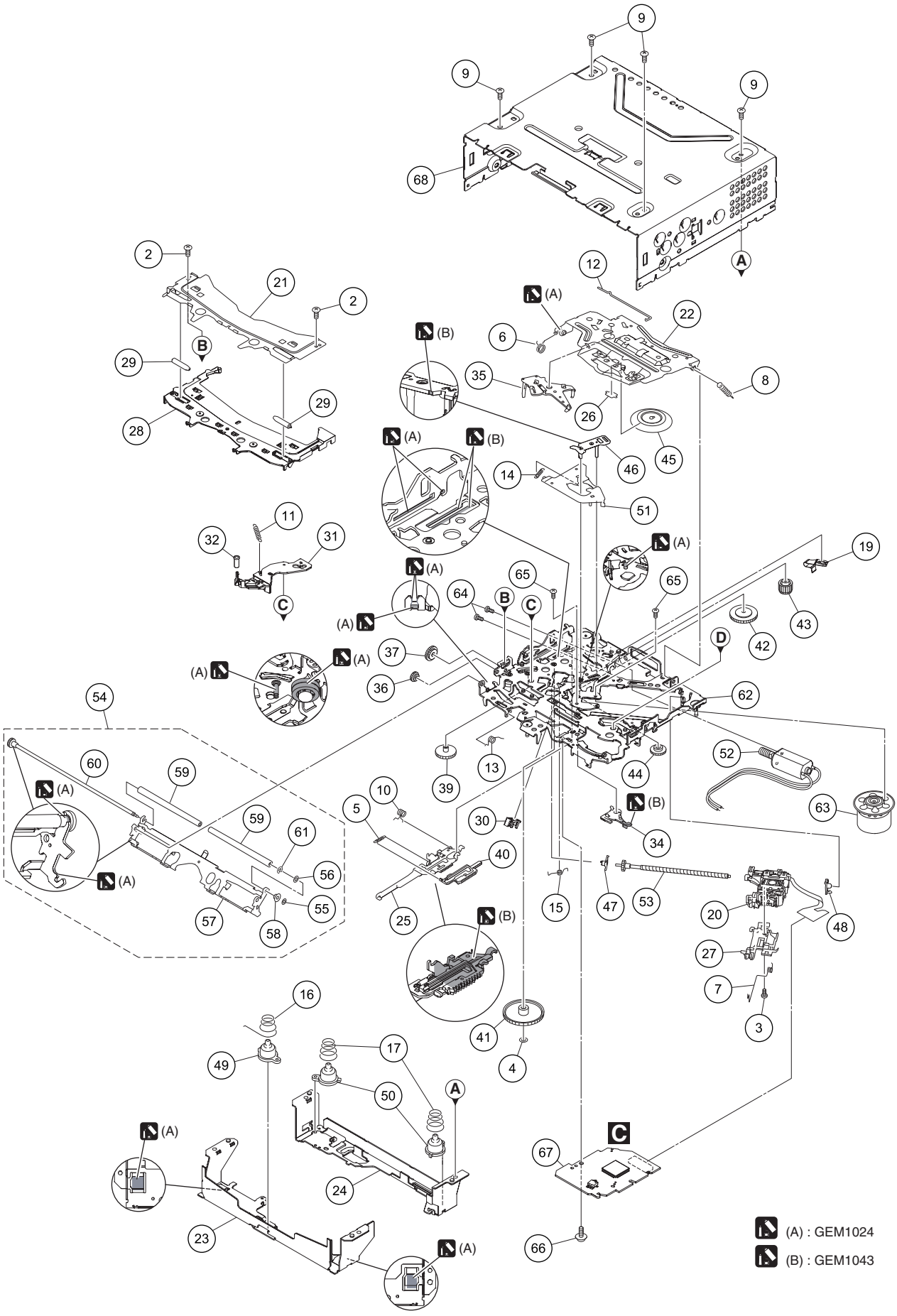
Mark	No.	Description	Part No.
	1	Screw	ASZ26P050FTC
	2	Screw	BSZ26P060FTC
	3	Screw	BSZ26P080FTC
	4	Screw	BSZ26P120FTC
*	5	Seal	See Contrast table (2)
	6	Spring	QBH3001
	7	Cover	QNM3029
	8	Panel	QNS3126
	9	Arm	QNV3025
	10	Button	QNV3026
	11	CD Mechanism Module(S11.6)	CXK5804
	12	Cable	QDE3021
	13	Cord Assy	See Contrast table (2)
	14	Case	QNB3002
	15	Holder	QNC3020
	16	Panel	QNS3127
	17	Tuner Amp Unit	See Contrast table (2)
	18	Screw	BPZ26P080FTC
	19	Screw	BSZ26P060FTC
	20	Screw	BSZ26P120FTC
	21	Holder	See Contrast table (2)
	22	Heat Sink	QNR3002
⚠	23	Fuse(10 A)	YEK5001
	24	Detach Grille Assy	See Contrast table (2)
	25	Screw	BPZ20P100FTC
	26	Spring	CBH2210
	27	Sheet	CNN3494
	28	Knob Unit	CXE3692
	29	Spring	YBL5010
	30	Button(EJECT)	QAC3066
	31	Button(LEFT)	QAC3068
	32	Button(RIGHT)	QAC3069
	33	Button(1-6, -)	QAC3070
	34	Button(DETACH)	QAC3071
	35	Button(LIST, SRC, COLOR, RETURN, BAND)	QAC3073
	36	Cover	QNS3226
	37	Lighting Conductor	QNV3039
	38	Contact Rubber	QNV3041
	39	Segment LCD(V1801)	CAW2018
	40	Holder	QNC3031
	41	Lighting Conductor	QNV3040
	42	Rubber Connector	QNV3045
	43	Grille Unit	See Contrast table (2)
	44	Door	QAT3004
	45	Card type RC Unit	See Contrast table (2)
	46	Cover	See Contrast table (2)
	47	Label	See Contrast table (2)

(2) CONTRAST TABLE

DEH-34UB/XNUC, DEH-3400UB/XNUC, DEH-3400UB/XNEW5, DEH-3450UB/XNES, DEH-3450UB/XNES1 and DEH-3490UB/XNID are constructed the same except for the following:

Mark	No.	Description	DEH-34UB/ XNUC	DEH-3400UB/ XNUC	DEH-3400UB/ XNEW5	DEH-3450UB/ XNES	DEH-3450UB/ XNES1	DEH-3490UB/ XNID
*	5	Seal	CAN3984	Not used	Not used	Not used	Not used	Not used
	13	Cord Assy	QDP3013	QDP3013	QDP3012	QDP3013	QDP3013	QDP3013
	17	Tuner Amp Unit	QWM3310	QWM3310	QWM3309	QWM3311	QWM3311	QWM3311
	21	Holder	QNC3033	QNC3033	QNC3032	QNC3033	QNC3033	QNC3033
	24	Detach Grille Assy	QXA3474	QXA3473	QXA3472	QXA3475	QXA3475	QXA3476
	43	Grille Unit	QXA3424	QXA3423	QXA3422	QXA3425	QXA3425	QXA3426
	45	Card type RC Unit	QXE1047	QXE1047	Not used	QXE1047	QXE1047	QXE1047
	46	Cover	CNS7068	CNS7068	Not used	CNS7068	CNS7068	CNS7068
	47	Label	Not used	Not used	Not used	Not used	Not used	CNN3533

9.3 CD MECHANISM MODULE



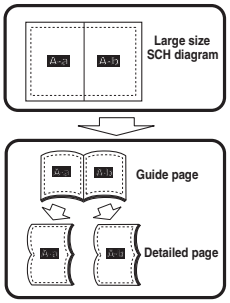
CD MECHANISM MODULE SECTION PARTS LIST

Mark No.	Description	Part No.
1	.....	
2	Screw	BSZ20P040FTC
3	Screw(M2 x 4)	CBA1835
4	Washer	CBF1038
5	Spring	CBH3010
6	Spring	CBH2855
7	Spring	CBH2856
8	Spring	CBH2860
9	Screw	BSZ26P060FTC
10	Spring	CBH3011
11	Coil Spring	CBH3095
12	Spring	CBH3014
13	Spring	CBH3015
14	Spring	CBH3016
15	Spring	CBH3017
16	Spring	CBH3086
17	Spring	CBH3019
18	.....	
19	Leaf Spring	CBL1824
20	Pickup Unit(P10.6)(Service)	CXX3556
21	Bracket	CND4553
22	Arm	CND4555
23	Bracket	CND6127
24	Bracket	CND5710
25	Lever	CND5398
26	Sheet	CNN3678
27	Rack	CNV8342
28	Guide	CNW2240
29	Roller	CNW1172
30	Holder	CNW1195
31	Arm	CNW2241
32	Roller	CNW1175
33	.....	
34	Arm	CNW1177
35	Arm	CNW1178
36	Gear	CNW1180
37	Gear	CNW1181
38	.....	
39	Gear	CNW1183
40	Rack	CNW1184
41	Gear	CNW1185
42	Gear	CNW1186
43	Gear	CNW1187
44	Gear	CNW2287
45	Clamper	CNW1190
46	Arm	CNW1192
47	Holder	CNW1193
48	Holder	CNW1194
49	Damper	CNW1197
50	Damper	CNW1198
51	Arm	CNW1726
52	Motor Unit(M2)(LOAD/CRG)	CXC4026
53	Screw Unit	CXC8894
54	Arm Assy	CXE5027
55	Washer	CBF1037
56	Washer	CBF1038
57	Arm	CND6242
58	Collar	CNW2444
59	Roller	CNW1196
60	Gear Unit	CXC8893
61	Washer	YE15FTC
62	Chassis Unit	CXE4528
63	Motor Unit(M1)(SPDL)	CXE2273
64	Screw	JFZ20P025FTC
65	Screw	JGZ17P022FTC
66	Screw	EBA1028
67	CD Core Unit (S11.6STD)	CWX4023
68	Chassis	CNA3181

10. SCHEMATIC DIAGRAM

10.1 TUNER AMP UNIT (GUIDE PAGE)

Note: When ordering service parts, be sure to refer to " EXPLODED VIEWS AND PARTS LIST" or "ELECTRICAL PARTS LIST".



A-a

*2

	A,B	C	D-F
C408	NM	NM	15p
C421	100p	100p	22p
C427	82p	82p	2p
C443	NM	0.01u	0.01u
C444	NM	NM	8p
C452	1u	NM	NM
C455	10p	NM	NM
L404	0.27uH	0.27uH	0.39uH
L405	CTF1389	CTF1389	NM
L406	22uH	22uH	1.5uH
L409	47uH	47uH	2.2uH
L416	NM	CTF1786	NM
L417	NM	NM	0.39uH
L418	NM	NM	0.27uH
L420	68n	NM	NM

	A,B	C	D-F
C432	NM	NM	CCG1205
C433	NM	NM	0.1u
C457	1u	NM	NM
C458	3p	NM	NM
R403	1.5k	1.5k	330
R406	470	470	360
R408	680	680	390
R421	0	NM	0
R431	0	NM	NM
R433	0	0	NM
R434	NM	NM	0
C430	0.47u	0.47u	NM
C431	0.1u	0.1u	NM
C439	NM	NM	0.1u

FM(30%) -15 dB±2.5: -15.0 dBs
AM(30%) -15 dB±2.5: -15.0 dBs
FM(30%) -11 dB±2.5 (EW5): -11.0 dBs
AM(30%) -11 dB±2.5 (EW5): -11.0 dBs

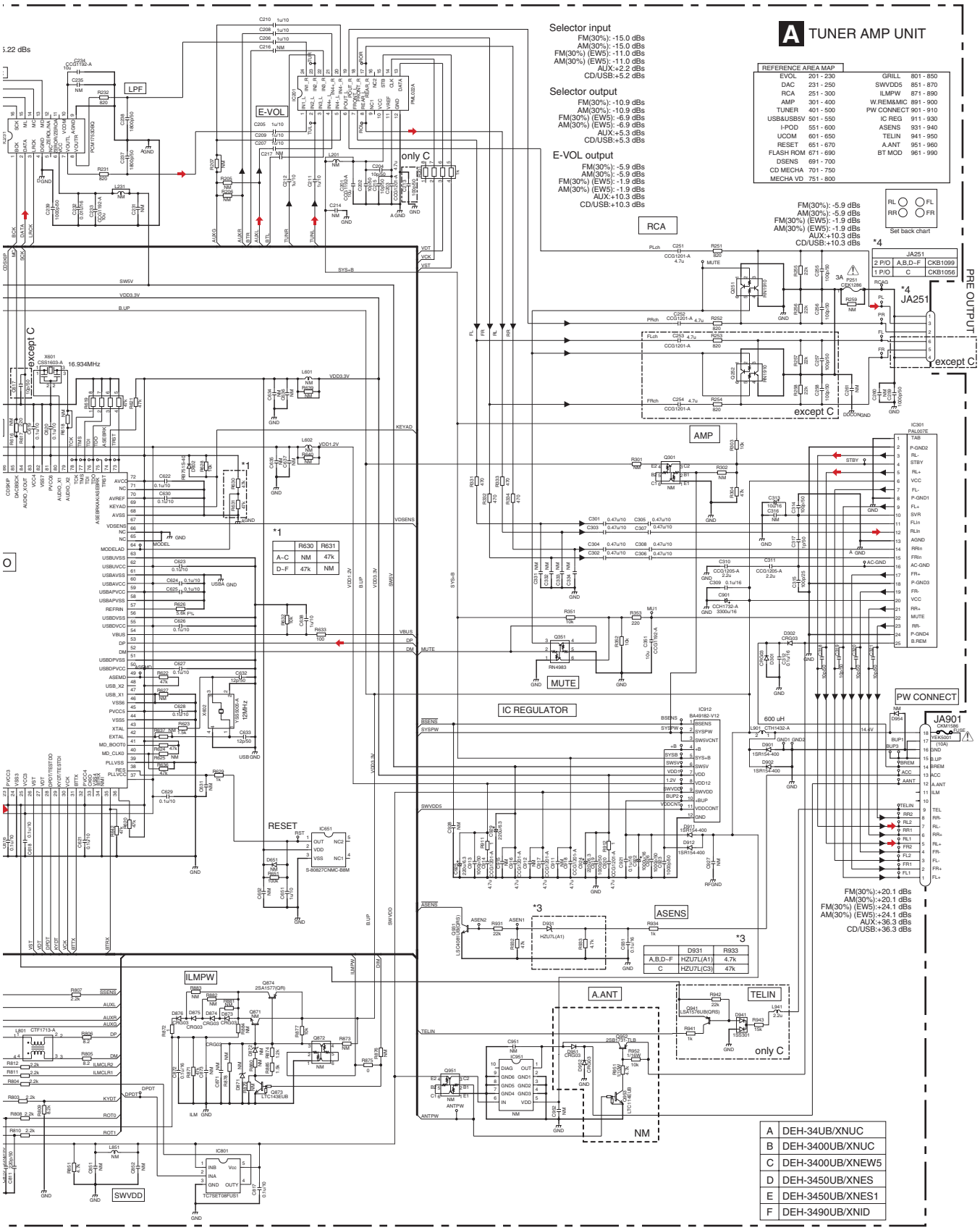
ANTENNA
TUNER
JA401
KN401
MZR6TP_GND
36.48MHz
IC401
TDA7706
FLASH ROM
KN601
MZR6TP_GND
IC671
CTF1786-A
X601
CSS1603-A
16.934MHz
except C
SYSTEM MICRO
IC601
R5S72662ZD144FP
CD
CN701
VKN1192
CD/USB:+5.22 dBs
DAC
PCM1793DBQ
MECHA VD
ipod CP
USB&USB5V
JA892
CKS4124
W.REM
JA891
YKS5026
(RMIC)
(W/R)
W.REM&MIC
CN961
VKN1189
BT MOD
LPF
NM
CN801
CKS8288
CN1821
GRILLE
IC671
A,B PEB012A8
C–F PEB011A8
*5

NOTE :
- Symbol indicates a resistor. No differentiation is made between chip resistors and discrete resistors.
- Symbol indicates a capacitor. No differentiation is made between chip capacitors and discrete capacitors.

NM : No Mount

The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

A-b



A	DEH-34UB/XNUC
B	DEH-3400UB/XNUC
C	DEH-3400UB/XNEW5
D	DEH-3450UB/XNES
E	DEH-3450UB/XNES1
F	DEH-3490UB/XNID

A TUNER AMP UNIT

Selector input
FM(30%): -15.0 dBs
AM(30%): -15.0 dBs
FM(30%) (EW5): -11.0 dBs
AM(30%) (EW5): -11.0 dBs
AUX:+2.2 dBs
CD/USB:+5.2 dBs

Selector output
FM(30%): -10.9 dBs
AM(30%): -10.9 dBs
FM(30%) (EW5): -6.9 dBs
AM(30%) (EW5): -6.9 dBs
AUX:+5.3 dBs
CD/USB:+5.3 dBs

E-VOL output
FM(30%): -5.9 dBs
AM(30%): -5.9 dBs
FM(30%) (EW5): -1.9 dBs
AM(30%) (EW5): -1.9 dBs
AUX:+10.3 dBs
CD/USB:+10.3 dBs

FM(30%): -5.9 dBs
AM(30%): -5.9 dBs
FM(30%) (EW5): -1.9 dBs
AM(30%) (EW5): -1.9 dBs
AUX:+10.3 dBs
CD/USB:+10.3 dBs

REFERENCE AREA MAP

EVOL	201 - 230	GRILL	801 - 850
DAC	231 - 250	SWVDD5	851 - 870
RCA	251 - 300	ILMPW	871 - 890
AMP	301 - 400	W.REM&MIC	891 - 900
TUNER	401 - 500	PW CONNECT	901 - 910
USB&USB5V	501 - 550	IC REG	911 - 930
I-POD	551 - 600	ASENS	931 - 940
UCOM	601 - 650	TELIN	941 - 950
RESET	651 - 670	A.ANT	951 - 960
FLASH ROM	671 - 690	BT MOD	961 - 990
DSENS	691 - 700		
CD MECHA	701 - 750		
MECHA VD	751 - 800		

RL FL
RR FR
Set back chart

*4

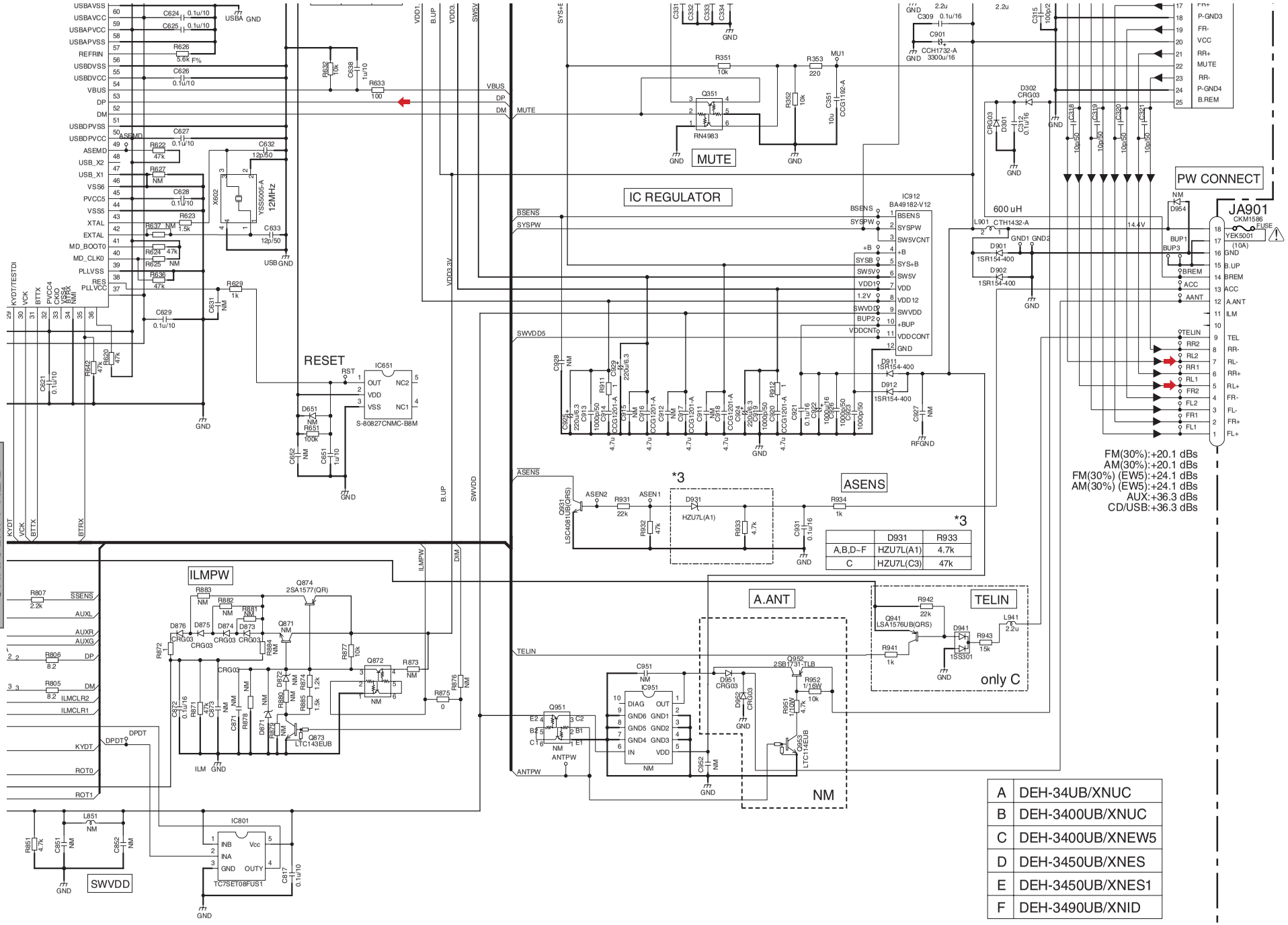
JA251		
2 P/O	A,B,D~F	CKB1099
1 P/O	C	CKB1056

*1

	R630	R631
A~C	NM	47k
D~F	47k	NM

except C

PRE OUTPUT

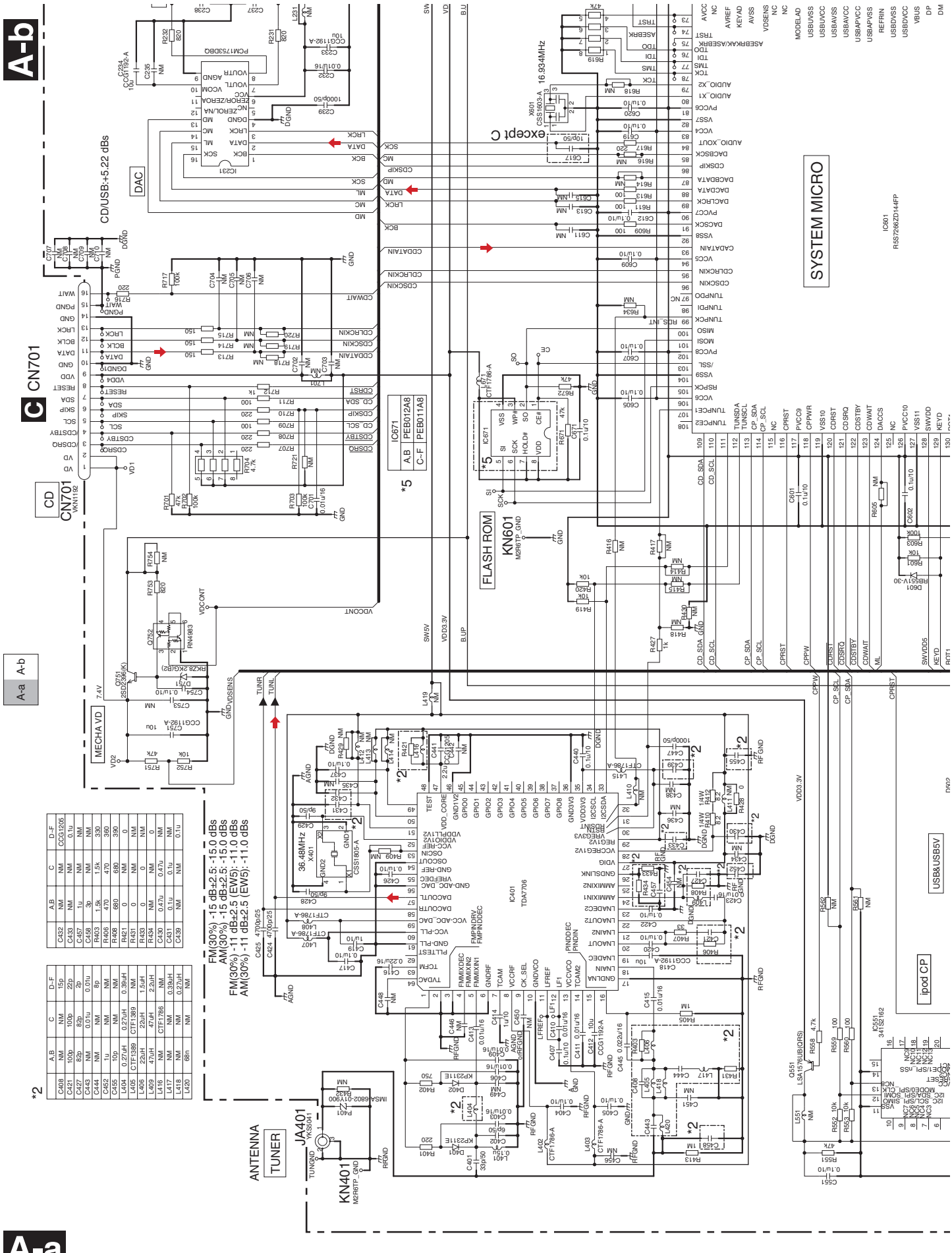


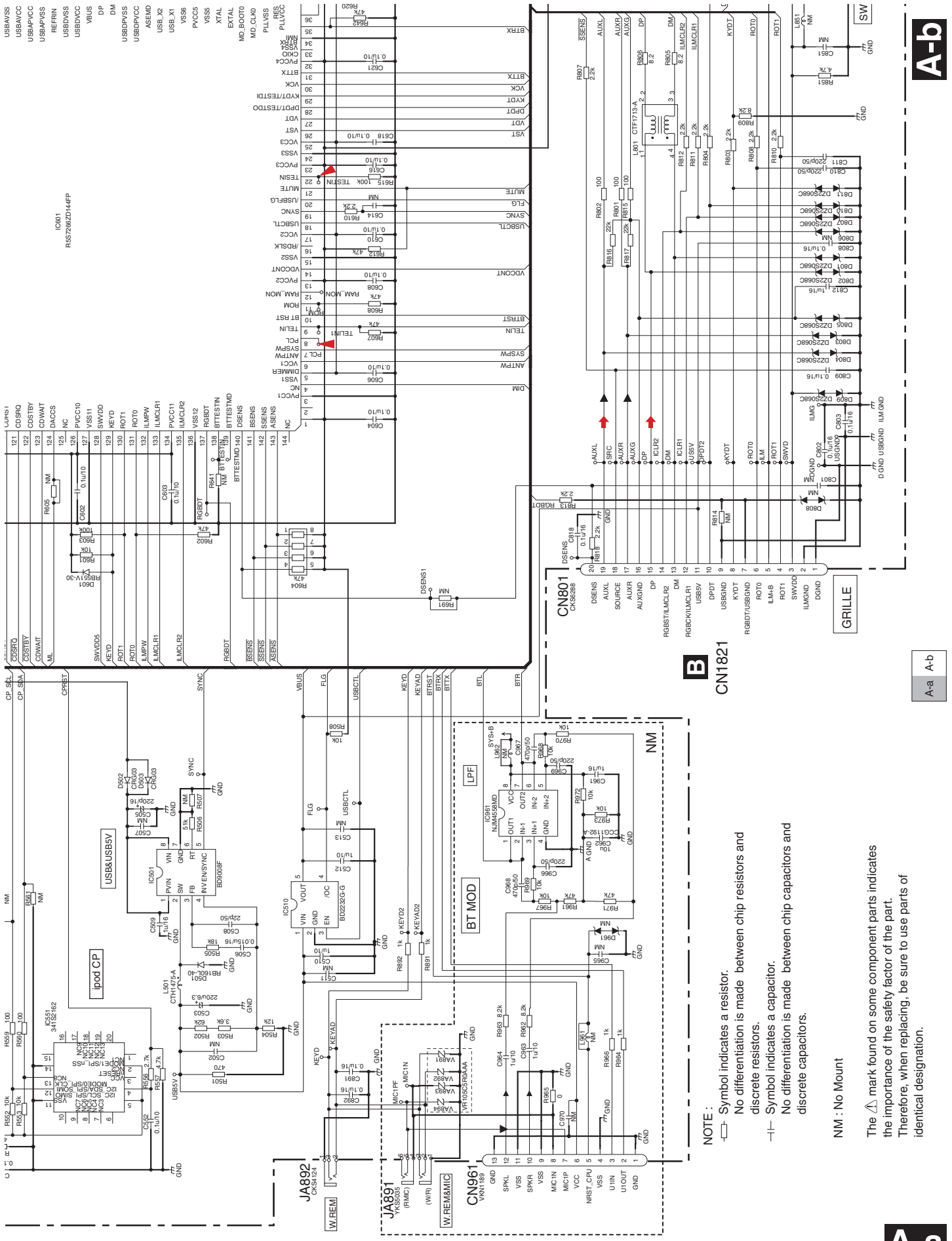
DEH-34UB/XNUC

A-b

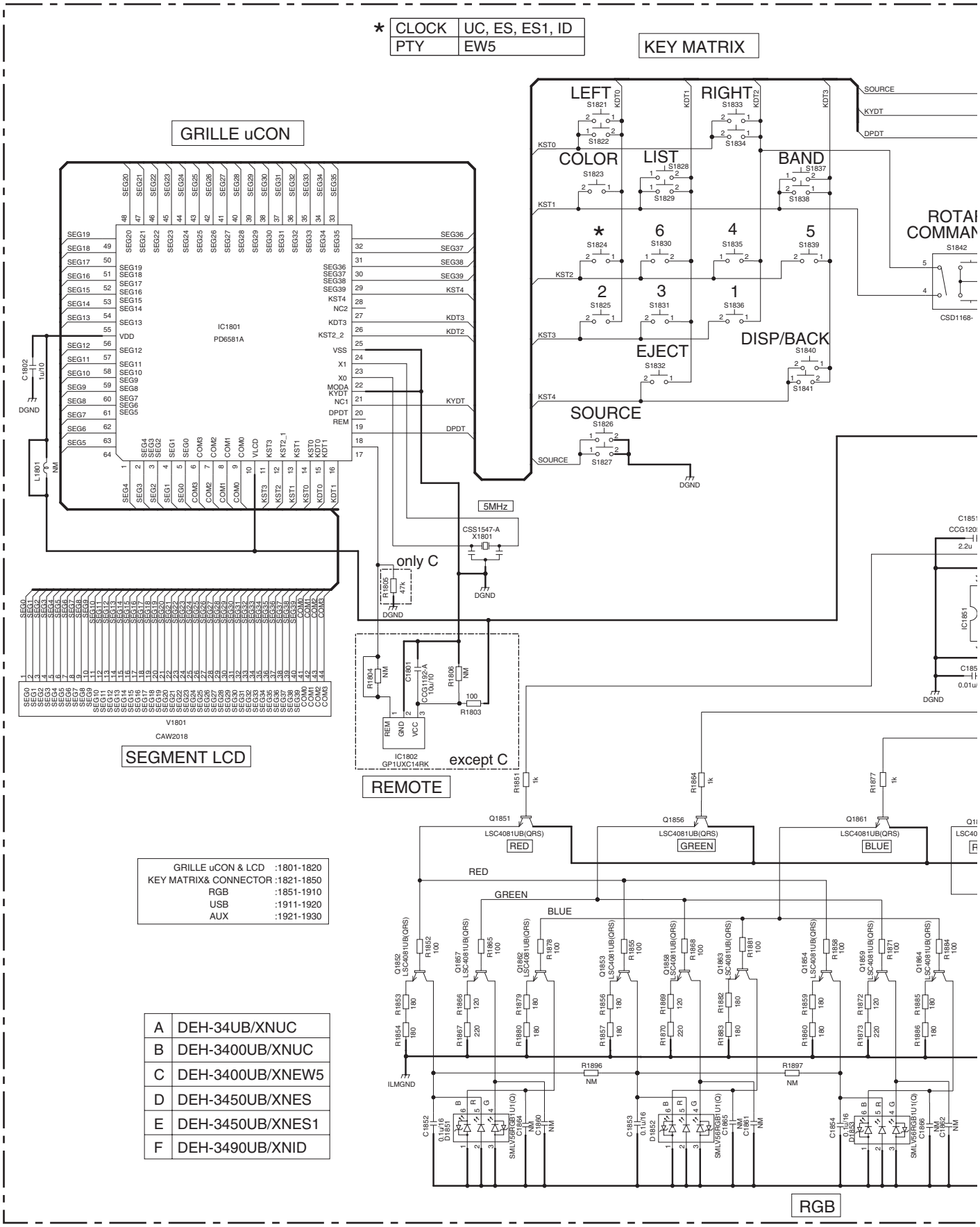
A-a | A-b

41

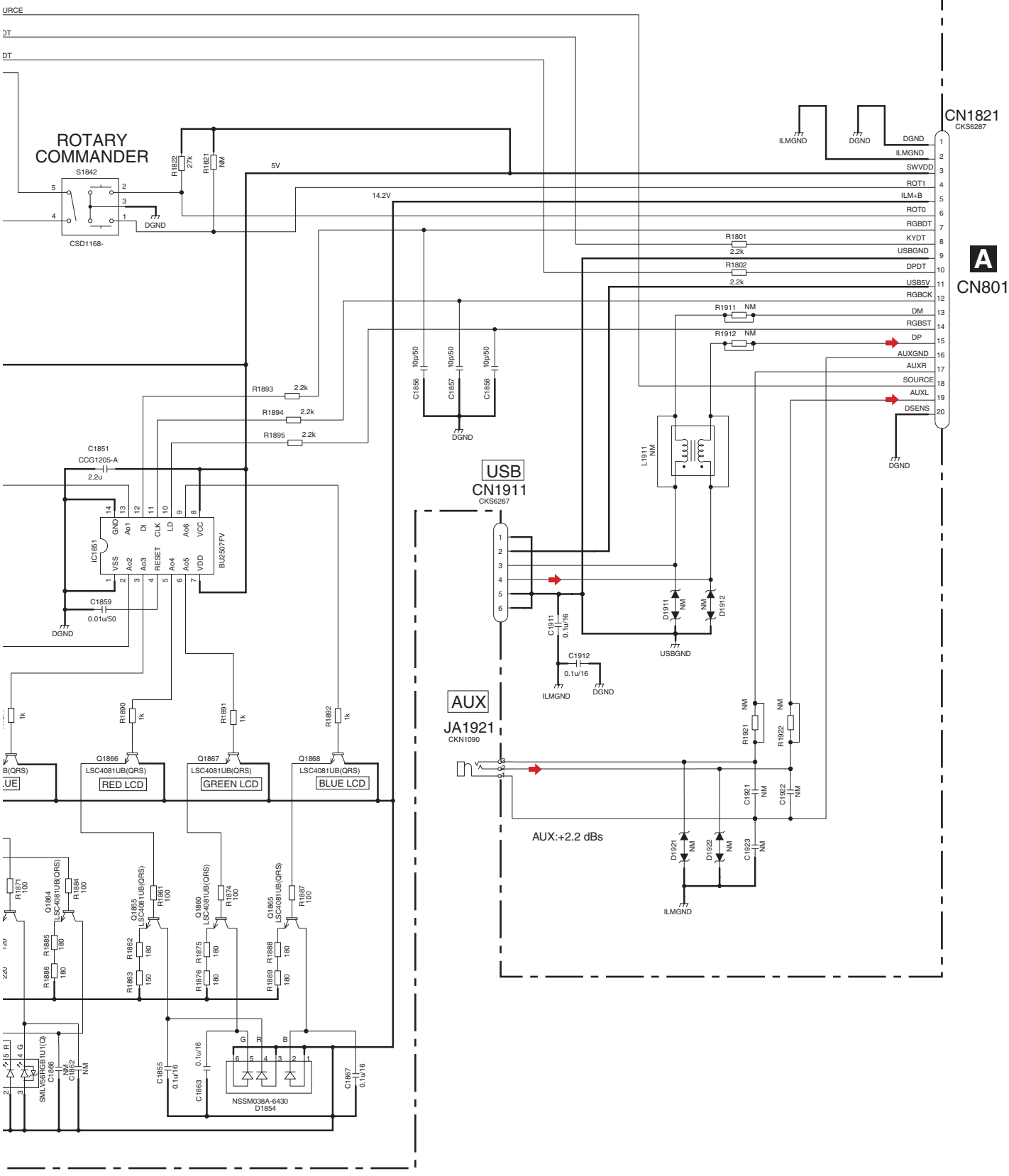

A-b
A-a
CD
CN701
VKN1192
CN701
DAC
CD/USB:+5.22 dBs
SYSTEM MICRO
IC601
R5S72662D144FP
except C
16.934MHz
FLASH ROM
KN601
M2R6TP
IC671
PEB012A8
PEB011A8
A,B
C-F
*5
MECHA VD
TUNER
ANTENNA
JA401
YKS5041
KN401
M2R6TP
IC401
TDA7706
36.48MHz
X401
IC551
34152162
Q551
LSA157UB(QRS)
ipod CP
USB&USB5V
FM(30%) -15 dB±2.5: -15.0 dBs
AM(30%) -15 dB±2.5: -15.0 dBs
FM(30%) -11 dB±2.5 (EW5): -11.0 dBs
AM(30%) -11 dB±2.5 (EW5): -11.0 dBs
*2
A-a
A-b
DEH-34UB/XNUC
42


A-b
A-a
B
CN801
CK9288
GRILLE
CN1821
JA892
CKS9124
W.REM
JA891
KJS035
(R/MIC)
(W/R)
W.REM&MIC
CN961
VNN1189
ipod CP
USB&USB5V
BT MOD
LPF
NM
IC601
R5S726ED144FP
IC961
NJM4558MD
IC510
BD2232G-G
IC501
BD9006F
IC551
34152162
L501
CTH1475-A
L801
CTF1713-A
NOTE :
Symbol indicates a resistor.
No differentiation is made between chip resistors and discrete resistors.
Symbol indicates a capacitor.
No differentiation is made between chip capacitors and discrete capacitors.
NM : No Mount
The ⚠ mark found on some component parts indicates the importance of the safety factor of the part.
Therefore, when replacing, be sure to use parts of identical designation.

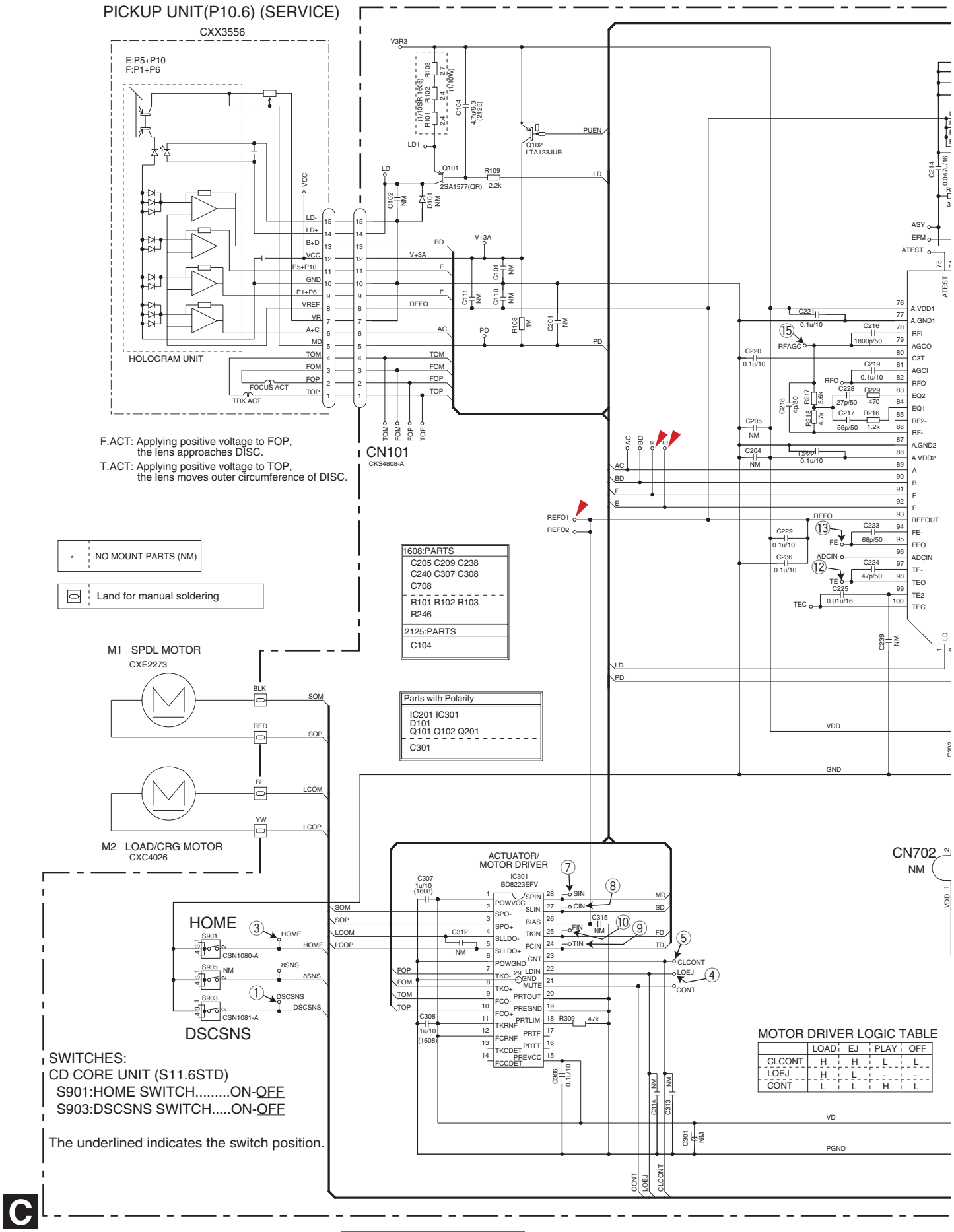
10.2 KEYBOARD UNIT

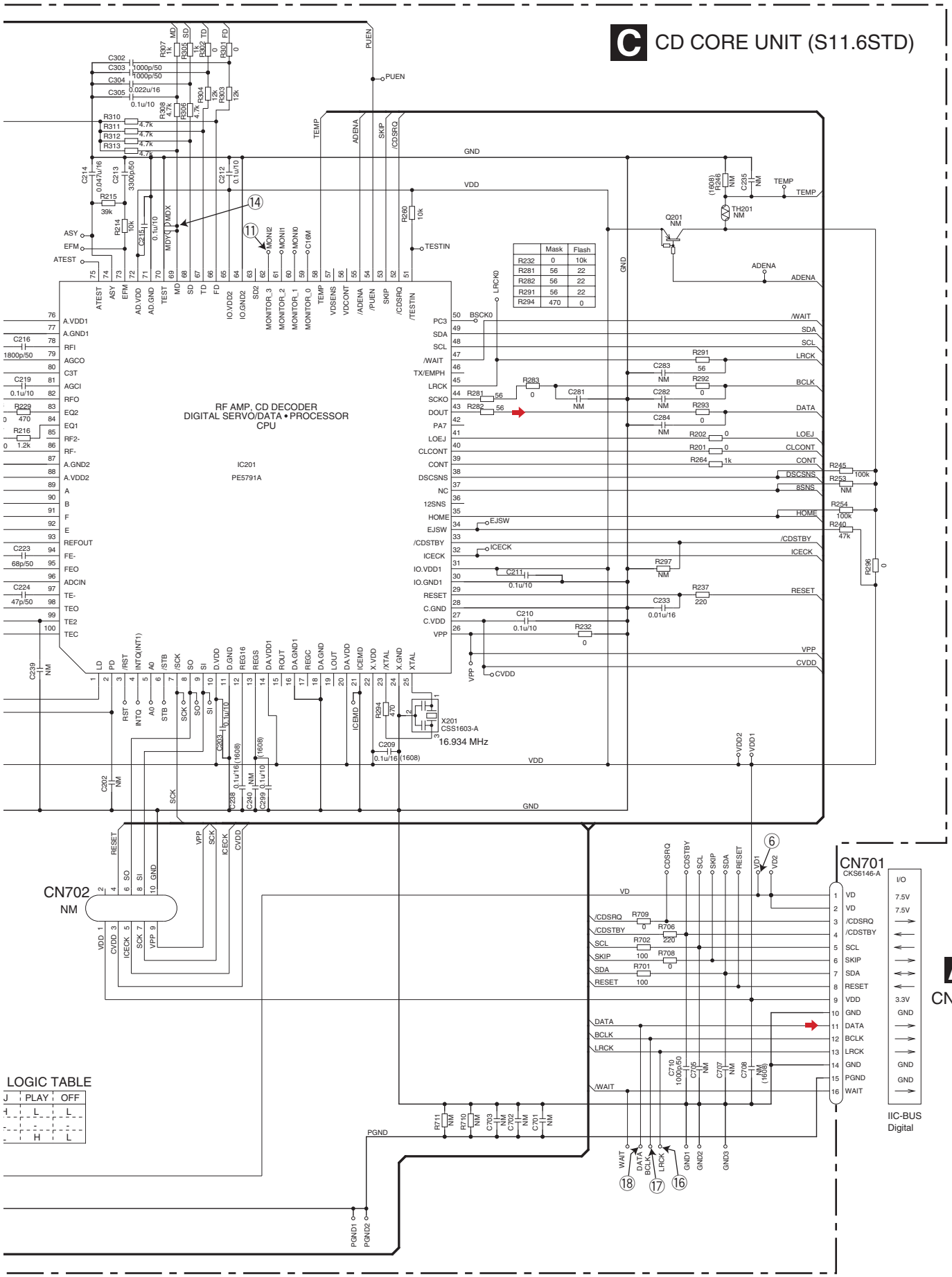


B KEYBOARD UNIT



10.3 CD CORE UNIT (S11.6STD)

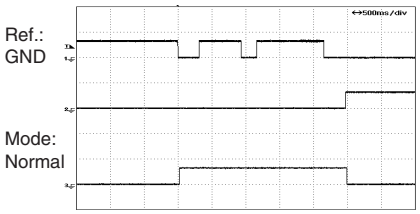
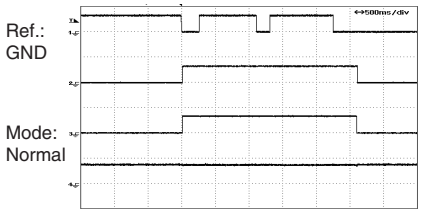
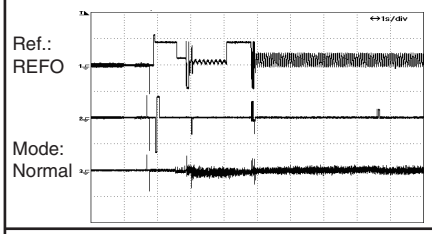
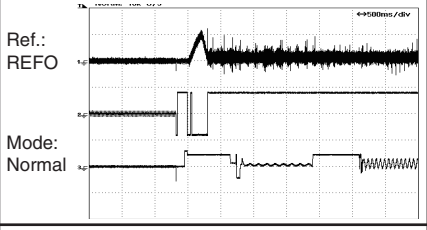
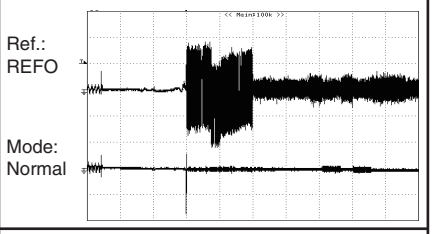
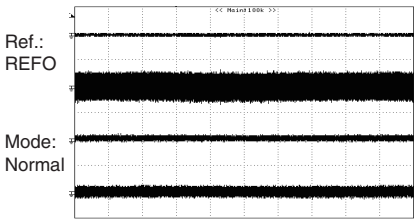
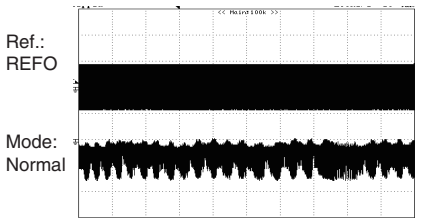
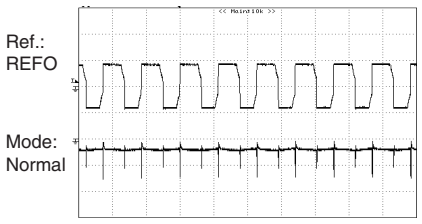
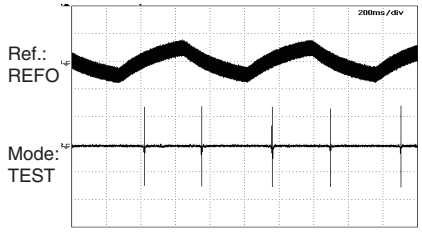
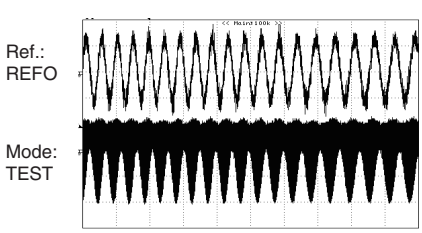
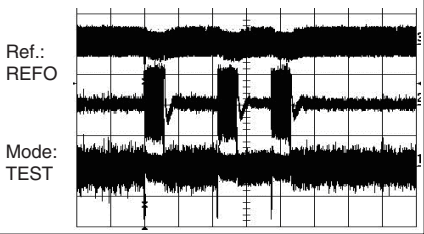



C CD CORE UNIT (S11.6STD)
RF AMP, CD DECODER
DIGITAL SERVO/DATA • PROCESSOR
CPU
IC201
PE5791A
X201
CSS1603-A
16.934 MHz
CN702
NM
CN701
CKS6146-A
I/O
7.5V
7.5V
3.3V
GND
IIC-BUS
Digital
LOGIC TABLE
PLAY
OFF
Mask
Flash
R232 0 10k
R281 56 22
R282 56 22
R291 56 22
R294 470 0
VDD
GND
PUEN
TESTIN
LRCK0
BSCK0
EJSW
ICECK
CVDD
VPP
RESET
SCK
SDA
SCL
/WAIT
DATA
BCLK
LRCK
/CDSRQ
/CDSTBY
ADENA
TEMP
PGND
PGND1
PGND2
A
CN701

10.4 WAVEFORMS

● CD CORE UNIT(S11.6STD)

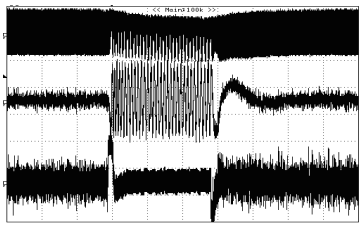
Note : 1. The encircled numbers denote measuring points in the circuit diagram.
2. Reference voltage REFO1(1.65 V)

①DSCSNS 5 V/div 500 ms/div ③HOME 5 V/div ④LOEJ 5 V/div 12 cm CD Loading operation 	①DSCSNS 5 V/div 500 ms/div ⑤CLCONT 5 V/div ④LOEJ 5 V/div ⑥VD1 10 V/div 12 cm CD Loading operation 	
⑦SIN 1 V/div 1 s/div ⑧CIN 500 mV/div ⑨TIN 500 mV/div 12 cm CD-DA setup operation after loading 	⑩FIN 200 mV/div 500 ms/div ⑪RFOK(MONI_2) 2 V/div ⑦SIN 2 V/div 12 cm CD-DA Source On setup operation 	⑫TE 500 mV/div 200 ms/div ⑬FE 500 mV/div Source On setup operation 
⑬FE 500 mV/div 20 ms/div ⑩FIN 500 mV/div ⑫TE 500 mV/div ⑨TIN 500 mV/div CD-DA Play operation 	⑭MDX 2 V/div 50 ms/div ⑦SIN 500 mV/div Spindle waveform during play operation 	⑭MDX 2 V/div 5 μs/div ⑦SIN 500 mV/div Spindle waveform during play operation (Wider) 
⑩FIN 500 mV/div 200 ms/div ⑬FE 500 mV/div Focus Search waveform 	⑫TE 500 mV/div 2 ms/div ⑮RFAGC 500 mV/div Track Open waveform 	⑮RFAGC 1 V/div 500 μs/div ⑫TE 500 mV/div ⑨TIN 500 mV/div 100 Track Jump waveform (32 Track Jump x 3) 

⑮RFAGC	1 V/div	2 ms/div
⑫TE	500 mV/div	
⑨TIN	500 mV/div	

32 Tracks Jump waveform
(Zoom of 100 Track Jump waveform)

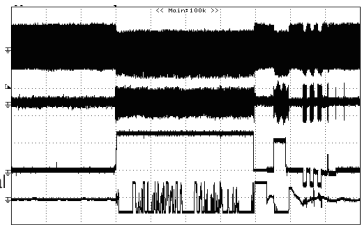
Ref.: REFO
Mode: TEST



⑮RFAGC	1 V/div	200 ms/div
⑫TE	1 V/div	
⑧CIN	500 mV/div	
⑦SIN	2 V/div	

Search operation(Outter to Inner)

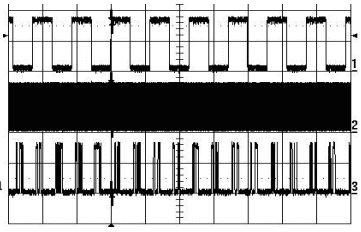
Ref.: REFO
Mode: Normal



⑯LRCK	2 V/div	10 us/div
⑰BCLK	2 V/div	
⑱DOUT(DATA)	2 V/div	

Digital Out waveform

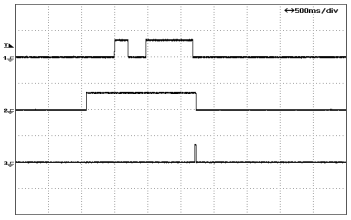
Ref.: GND
Mode: Norma



①DSCSNS	5 V/div	500 ms/div
⑤CLCONT	5 V/div	
④LOEJ	5 V/div	

12 cm CD Eject operation

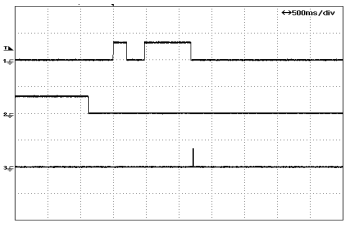
Ref.: GND
Mode: Normal



①DSCSNS	5 V/div	500 ms/div
③HOME	5 V/div	
④LOEJ	5 V/div	

12 cm CD Eject operation

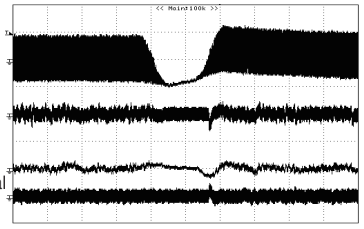
Ref.: GND
Mode: Normal



⑮RFAGC	1 V/div	500 μs/div
⑨TIN	1 V/div	
⑫TE	1 V/div	
⑩FIN	1 V/div	

Black Dot (800 μm) during play

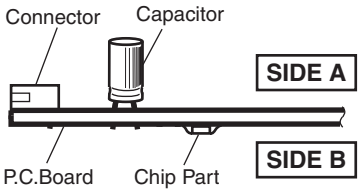
Ref.: REFO
Mode: Normal



11. PCB CONNECTION DIAGRAM
11.1 TUNER AMP UNIT

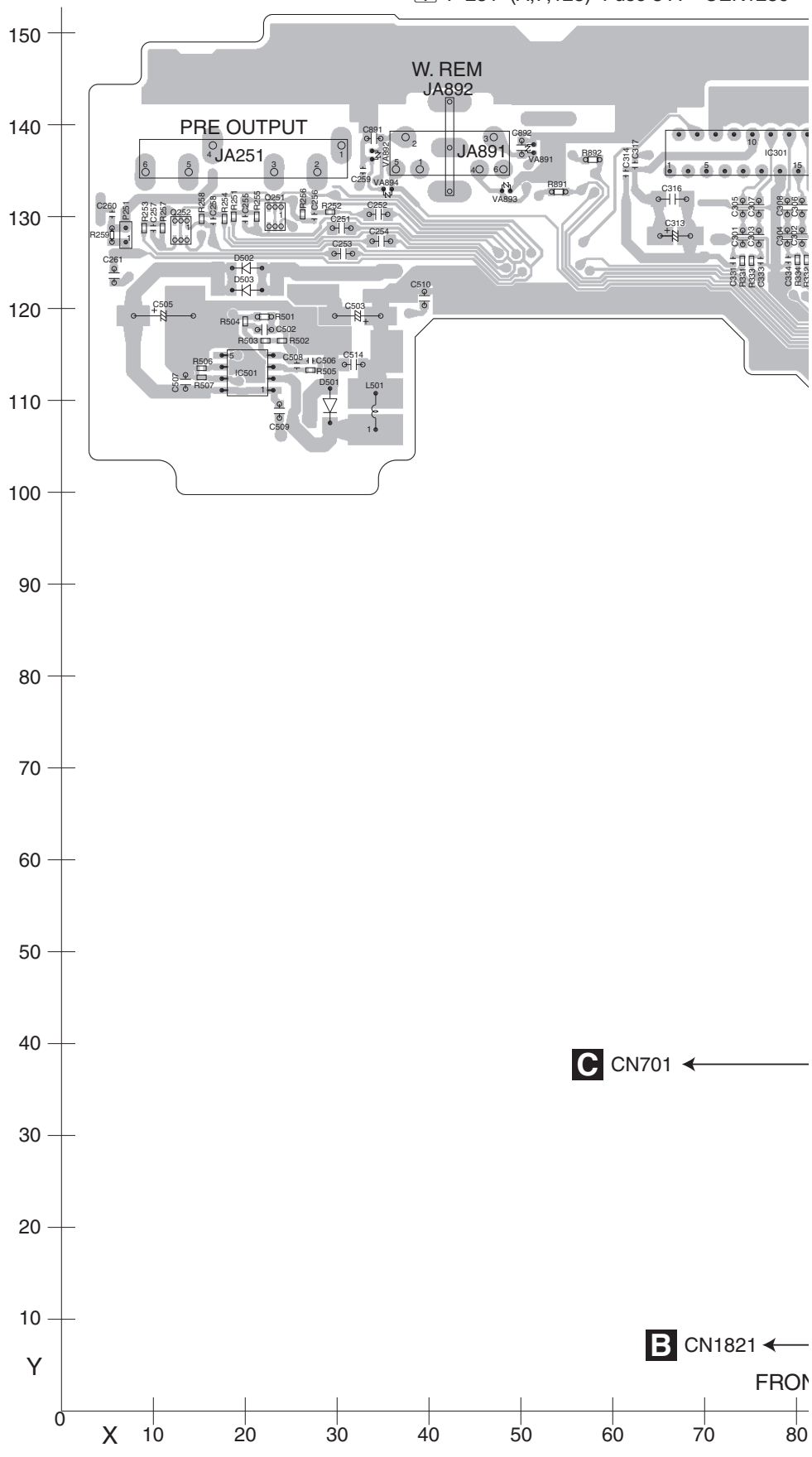
NOTE FOR PCB DIAGRAMS

1. The parts mounted on this PCB include all necessary parts for several destination. For further information for respective destinations, be sure to check with the schematic diagram.
2. Viewpoint of PCB diagrams



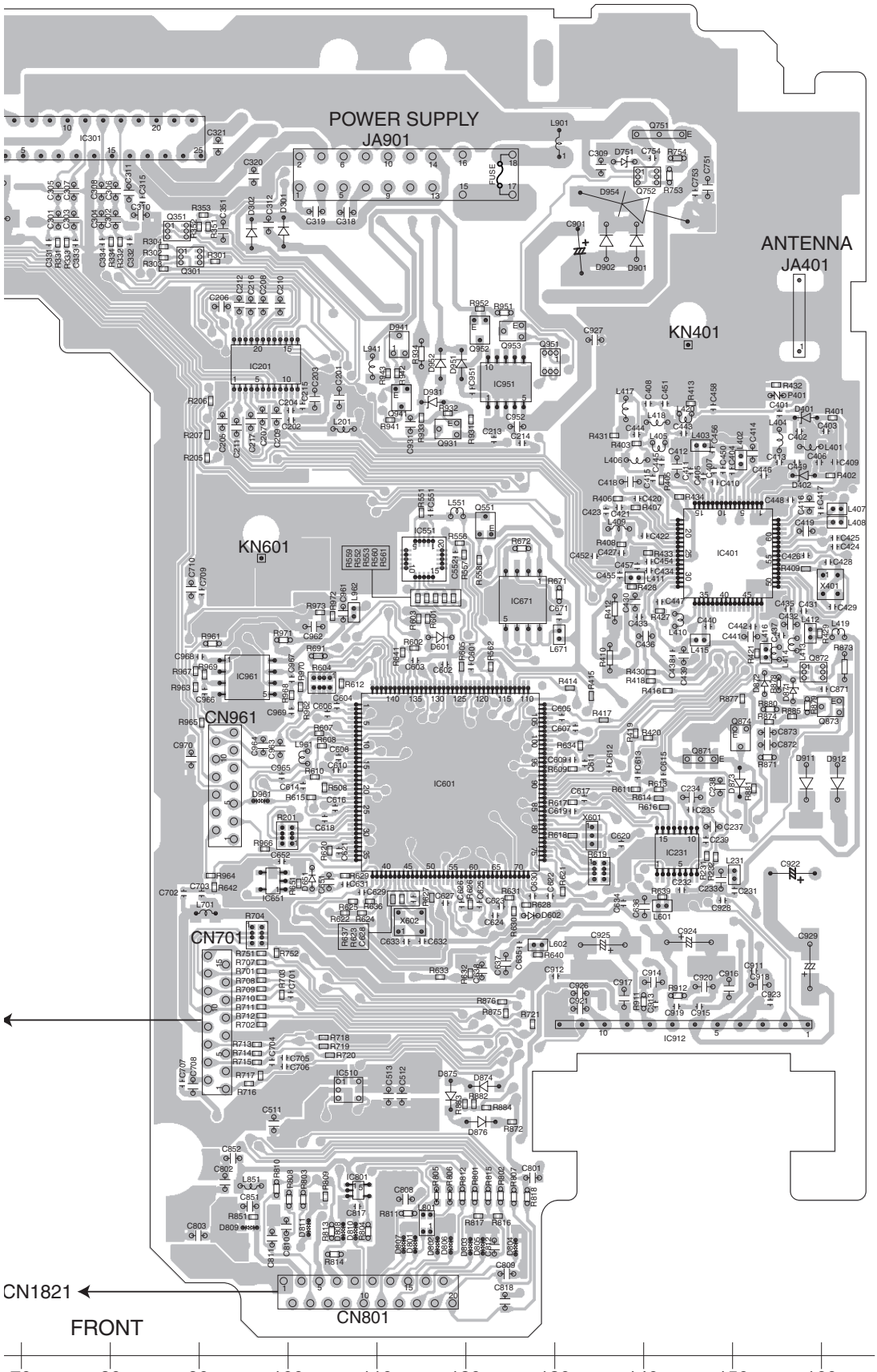
A TUNER AMP UNIT

⚠ P 251 (A,7,128) Fuse 3 A CEK1286



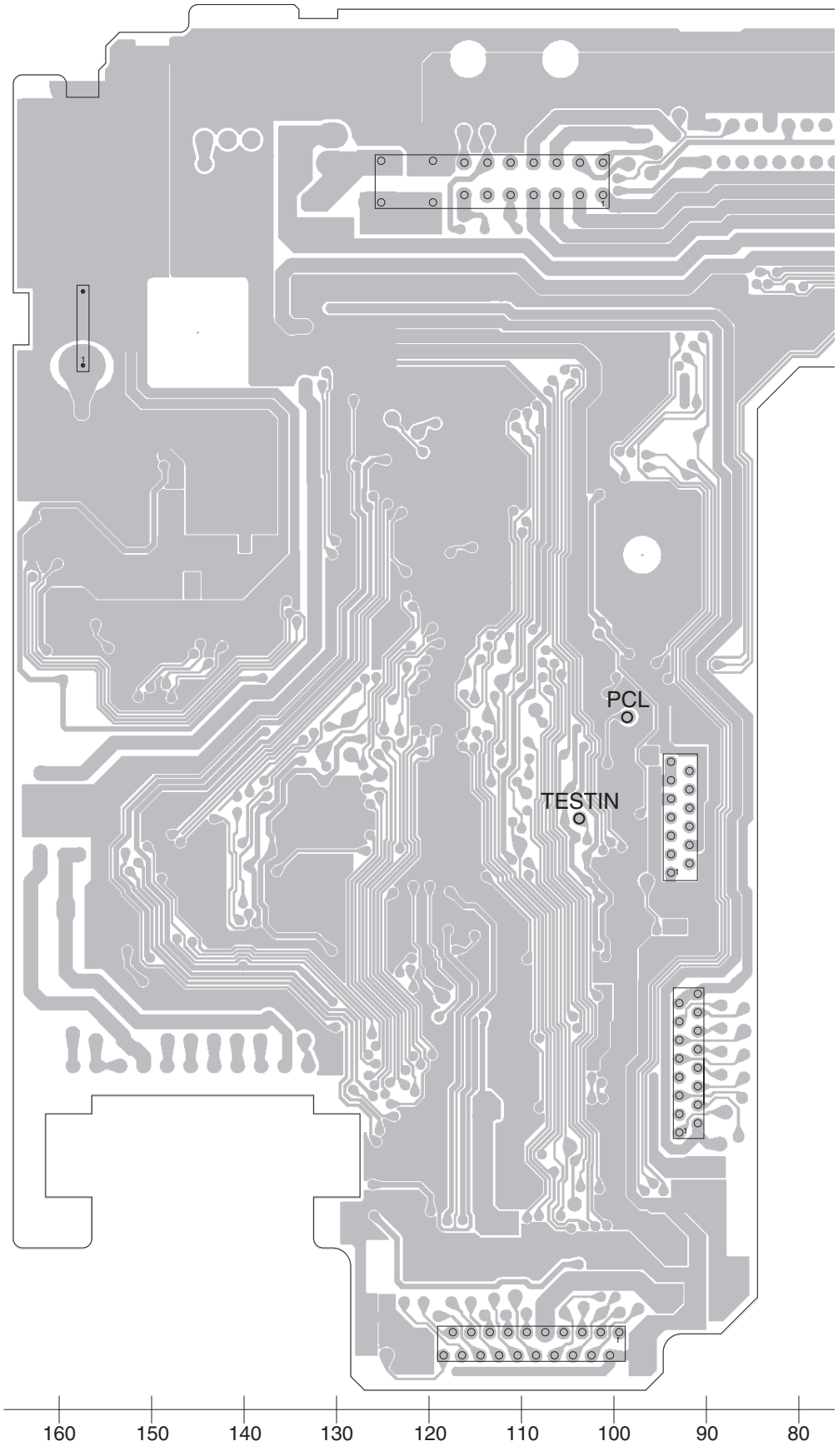
SIDE A

CEK1286



A

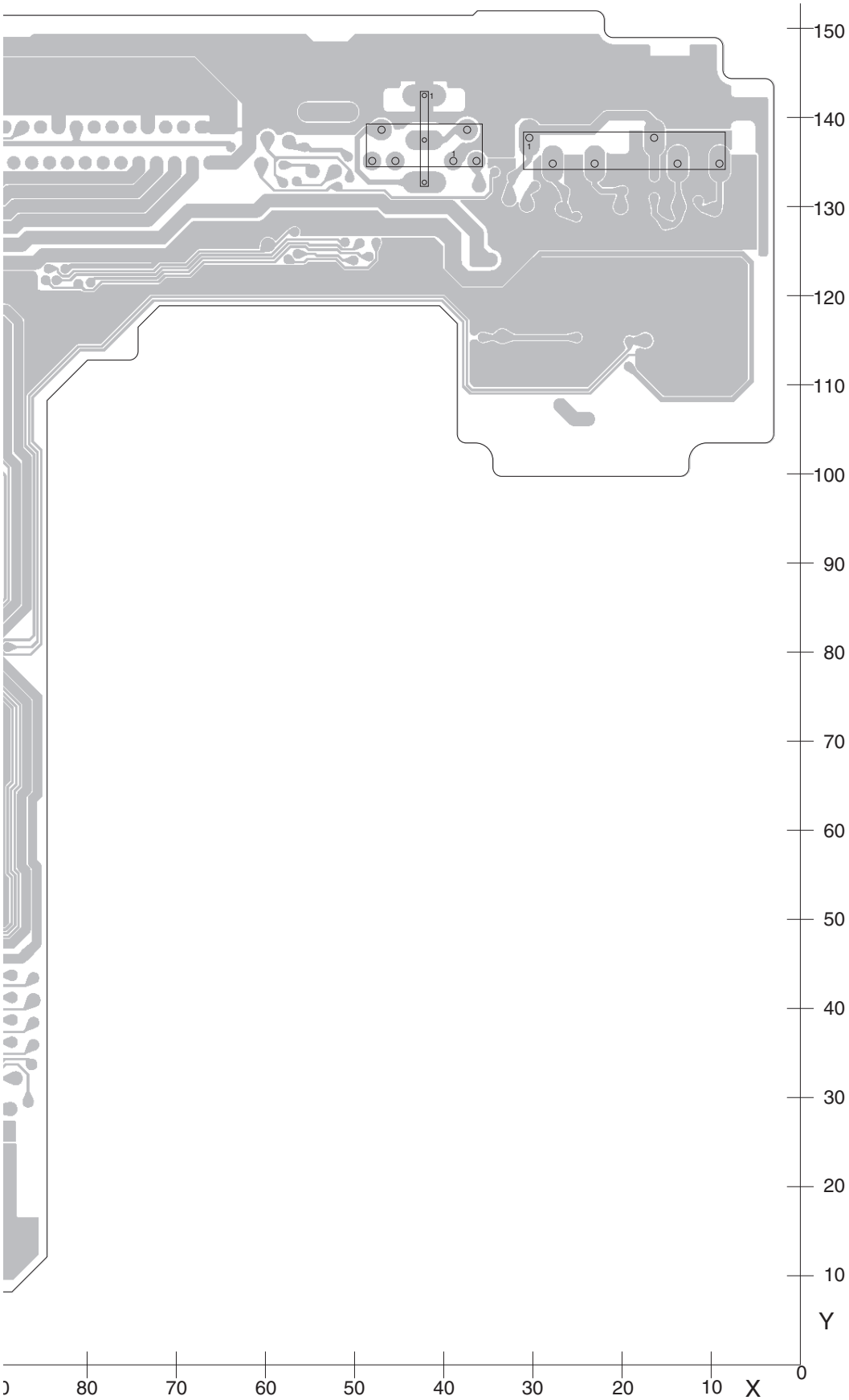
A TUNER AMP UNIT



B C D E F

A

SIDE B

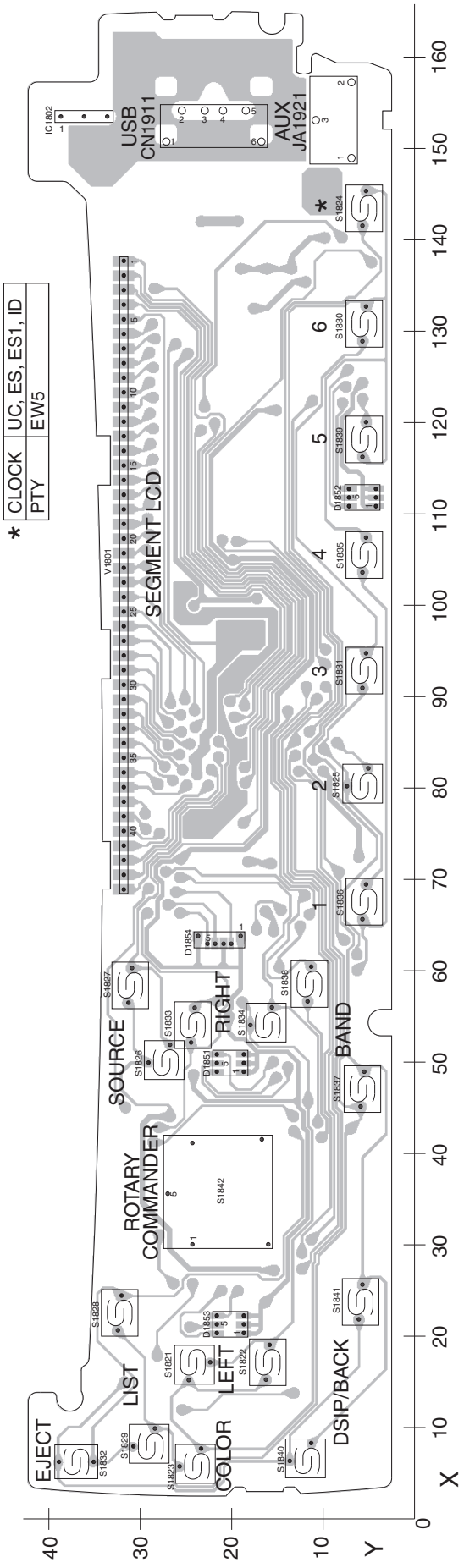


DEH-34UB/XNUC

11.2 KEYBOARD UNIT

B KEYBOARD UNIT

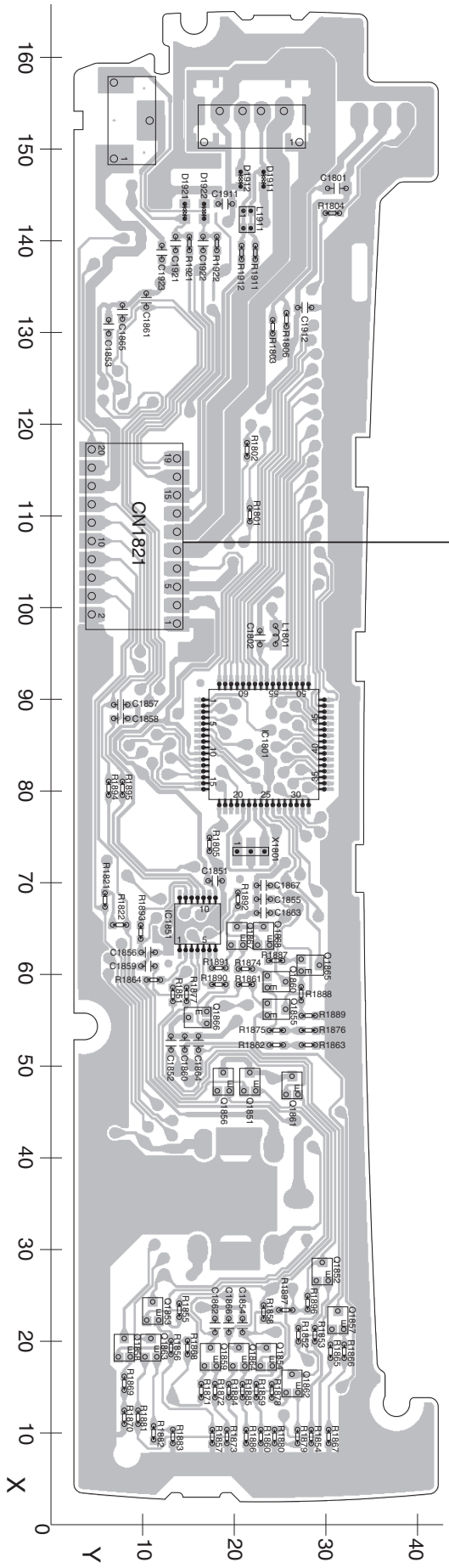
SIDE A



B

B KEYBOARD UNIT

SIDE B

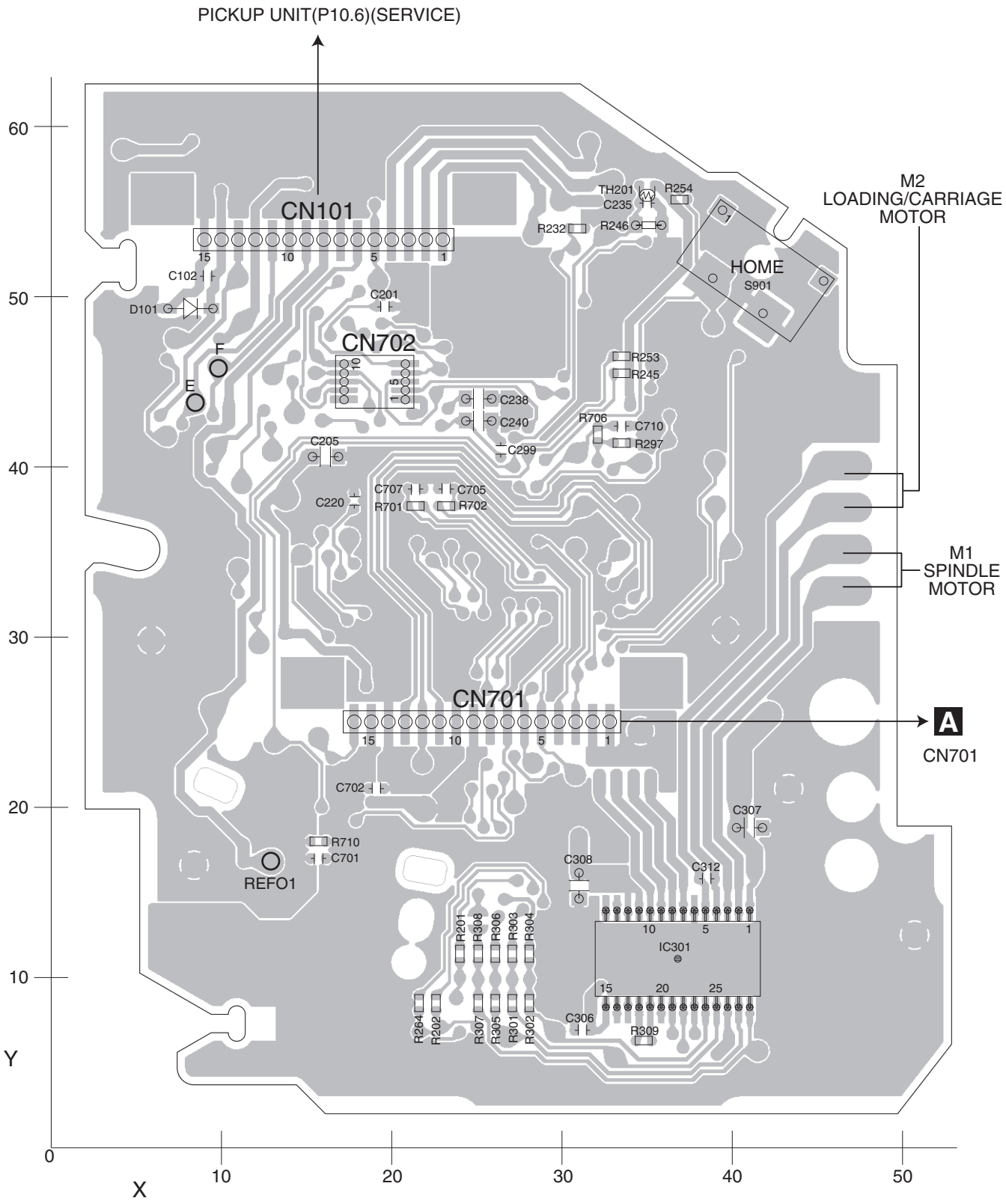


B

11.3 CD CORE UNIT (S11.6STD)

C CD CORE UNIT (S11.6STD)

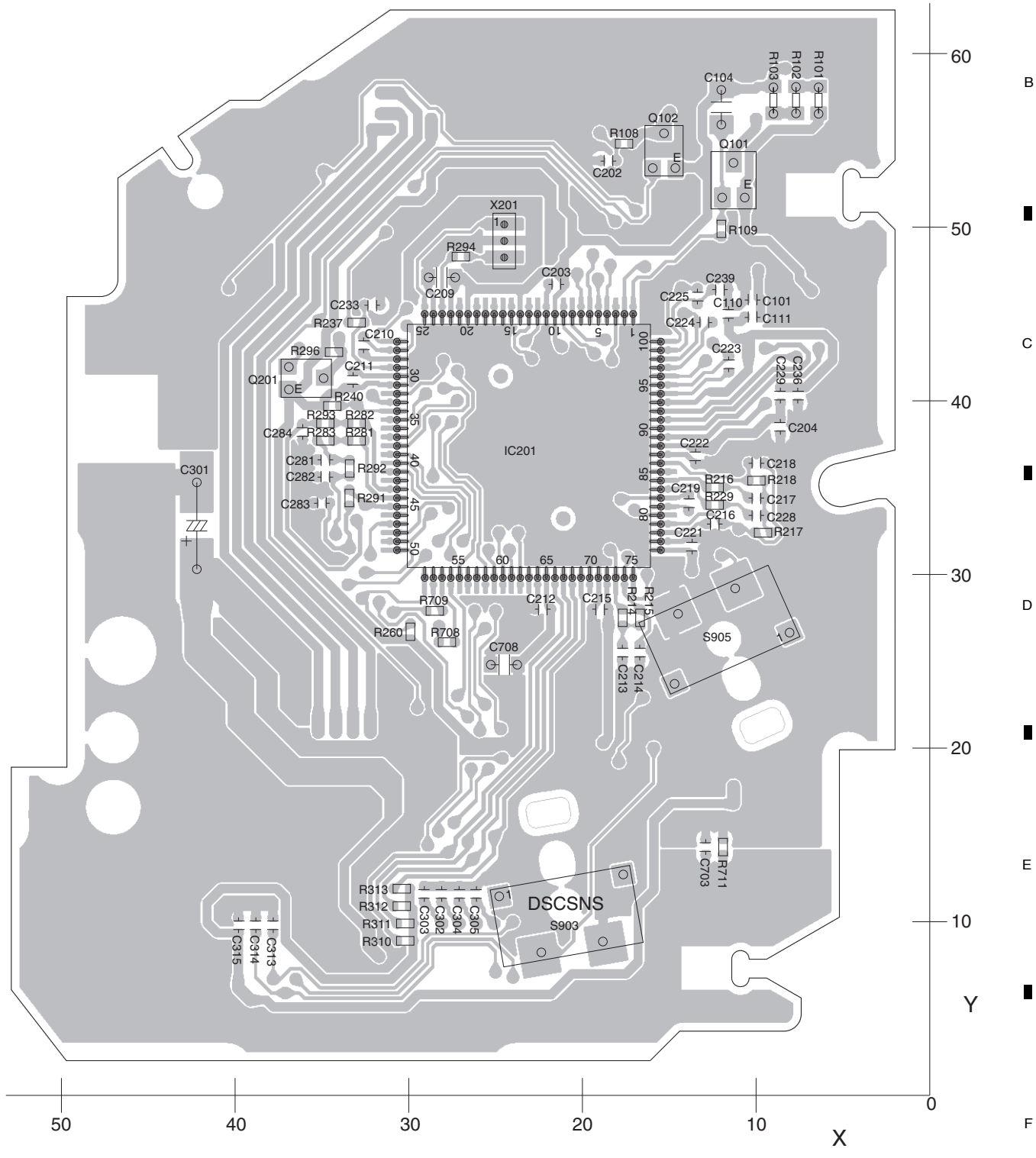
SIDE A



C

C CD CORE UNIT (S11.6STD)

SIDE B



12. ELECTRICAL PARTS LIST

NOTE:

- *Parts whose parts numbers are omitted are subject to being not supplied.*
- *The part numbers shown below indicate chip components.*

Chip Resistor

RS1/◯S◯◯◯J,RS1/◯◯S◯◯◯J

Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

- *The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.*
- *Meaning of the figures and others in the parentheses in the parts list.*

Example) IC 301 is on the point (face A, 91 of x-axis, and 111 of y-axis) of the corresponding PC board.

IC 301 (A, 91, 111) IC NJM2068V

A:DEH-34UB/XNUC
B:DEH-3400UB/XNUC
C:DEH-3400UB/XNEW5
D:DEH-3450UB/XNES
E:DEH-3450UB/XNES1
F:DEH-3490UB/XNID

Unit Number : QWM3310(A,B)
: QWM3309(C)
: QWM3311(D,E,F)
Unit Name : Tuner Amp Unit
Unit Number : (A,B,D,E,F)
: (C)
Unit Name : Keyboard Unit
Unit Number : CWX4023
Unit Name : CD Core Unit (S11.6STD)

A

Unit Number : QWM3310(A,B)
: QWM3309(C)
: QWM3311(D,E,F)
Unit Name : Tuner Amp Unit

MISCELLANEOUS

Circuit Symbol and No.			Part No.
IC 201	(A,98,112)	IC	PML022A
IC 231	(A,144,57)	D/A Converter	PCM1753DBQ
IC 301	(A,78,141)	IC	PAL007E
IC 401	(A,150,90)	IC	TDA7706
IC 501	(A,20,113)	IC	BD9008F
IC 510	(A,107,30)	IC	BD2232G-G
IC 551	(A,115,90)	IC	341S2162
IC 601	(A,118,65)	IC	R5S7266ZD144FP
IC 651	(A,98,53)	IC	S-80827CNMC-B8M
IC 671	(A,126,85)	Flash ROM Unit(A,B)	PEB012A8
	(A,126,85)	Flash ROM Unit(C,D,E,F)	PEB011A8
IC 801	(A,108,19)	L-MOS And Gate	TC7SET08FUS1
IC 912	(A,145,28)	IC	BA49182-V12
Q 251	(A,23,130)	Chip Transistor	RN1910
Q 252	(A,13,129)	Chip Transistor(A,B,D,E,F)	RN1910
Q 351	(A,88,127)	Chip Transistor	RN4983
Q 551	(A,122,93)	Transistor	LSA1576UB
Q 751	(A,142,138)	Transistor	2SD2396
Q 752	(A,140,133)	Chip Transistor	RN4983
Q 873	(A,161,73)	Transistor	LTC143EUB
Q 874	(A,151,70)	Transistor	2SA1577
Q 931	(A,118,104)	Transistor	LSC4081UB
Q 941	(A,113,108)	Transistor(C)	LSA1576UB
D 301	(A,100,126)	Diode	CRG03
D 302	(A,96,126)	Diode	CRG03
D 401	(A,158,106)	Diode	KP2311E
D 402	(A,158,99)	Diode	KP2311E
D 501	(A,29,109)	Diode	RB160L-40
D 502	(A,20,124)	Diode	CRG03
D 503	(A,20,122)	Diode	CRG03
D 601	(A,117,81)	Diode	RB551V-30
D 602	(A,127,50)	Diode	RB751S-40
D 751	(A,138,134)	Diode	RKZ8.2KG(B2)
D 801	(A,114,13)	Diode	DZ2S068C
D 802	(A,117,12)	Diode	DZ2S068C
D 803	(A,121,12)	Diode	DZ2S068C
D 804	(A,126,12)	Diode	DZ2S068C
D 805	(A,122,12)	Diode	DZ2S068C
D 807	(A,113,13)	Diode	DZ2S068C
D 809	(A,96,14)	Diode	DZ2S068C
D 810	(A,108,14)	Diode	DZ2S068C
D 811	(A,102,14)	Diode	DZ2S068C
D 873	(A,151,65)	Diode	CRG03
D 874	(A,122,30)	Diode	CRG03
D 875	(A,118,29)	Diode	CRG03
D 876	(A,122,26)	Diode	CRG03
D 901	(A,139,125)	Diode	1SR154-400
D 902	(A,136,125)	Diode	1SR154-400
D 911	(A,158,65)	Diode	1SR154-400

Circuit Symbol and No.		Part No.
D 912	(A,162,65) Diode	1SR154-400
D 931	(A,116,107) Diode(A,B,D,E,F)	HZU7L(A1)
	(A,116,107) Diode(C)	HZU7L(C3)
D 941	(A,113,114) Diode(C)	1SS301
L 401	(A,159,102) Chip Coil	LCTAWR15J2520
L 402	(A,151,101) Inductor	CTF1786
L 403	(A,146,102) Inductor	CTF1786
L 404	(A,155,103) Chip Coil(A,B,C)	LCTAWR27J2520
	(A,155,103) Chip Coil(D,E,F)	LCTAWR39J2520
L 405	(A,142,103) Inductor(A,B,C)	CTF1389
L 406	(A,139,101) Inductor(A,B,C)	LCTAW220J2520
	(A,139,101) Chip Coil(D,E,F)	LCTAW1R5J2520
L 407	(A,162,95) Inductor	CTF1786
L 408	(A,162,94) Inductor	CTF1786
L 409	(A,137,93) Chip Coil(A,B,C)	LCTAW470J2520
	(A,137,93) Inductor(D,E,F)	LCTAW2R2J2520
L 415	(A,146,81) Inductor	CTF1786
L 416	(A,154,79) Inductor(C)	CTF1786
L 417	(A,138,107) Chip Coil(D,E,F)	LCTAWR39J2520
L 418	(A,142,105) Chip Coil(D,E,F)	LCTAWR27J2520
L 420	(A,145,106) Inductor(A,B)	LCYB68NJ1608
L 501	(A,34,109) Coil	CTH1475
L 671	(A,131,81) Inductor	CTF1786
L 801	(A,116,15) Inductor	CTF1713
L 901	(A,112,140) Choke Coil 600 uH	CTH1432
L 941	(A,110,111) Inductor(C)	LCTAW2R2J2520
X 401	(A,161,87) Oscillator 36.48 MHz	CSS1805
X 601	(A,134,59) Ceramic Resonator 16.934 MHz	CSS1603
X 602	(A,114,49) Oscillator 12 MHz	YSS5005
⚠ P251	(A,7,128) Fuse 3 A	CEK1286
P 401	(A,155,108) Surge Protector	IMSA-6802-01Y900
CN701	(A,92,38) Connector	VKN1192
CN801	(A,109,3) Connector	CKS6288
JA251	(A,19,137) Pin Jack(A,B,D,E,F)	CKB1099
	(A,19,137) Pin Jack(C)	CKB1056
JA401	(A,158,128) Antenna Jack	YKS5041
JA892	(A,42,138) Connector	CKS4124
JA901	(A,113,140) Plug	CKM1586
⚠	Fuse(10 A)	YEK5001

RESISTORS

R 201	(A,100,59)	RAB4CQ102J
R 231	(A,147,56)	RS1/16SS821J
R 232	(A,148,56)	RS1/16SS821J
R 251	(A,19,130)	RS1/16SS821J
R 252	(A,29,131)	RS1/16SS821J
R 253	(A,9,129) (A,B,D,E,F)	RS1/16SS821J
R 254	(A,18,130) (A,B,D,E,F)	RS1/16SS821J
R 255	(A,21,130)	RS1/16SS223J
R 256	(A,26,130)	RS1/16SS223J
R 257	(A,11,129) (A,B,D,E,F)	RS1/16SS223J
R 258	(A,15,130) (A,B,D,E,F)	RS1/16SS223J
R 303	(A,86,122)	RS1/16SS103J
R 304	(A,86,125)	RS1/16SS473J
R 331	(A,74,125)	RS1/16SS471J
R 332	(A,81,125)	RS1/16SS471J
R 333	(A,75,125)	RS1/16SS471J
R 334	(A,80,125)	RS1/16SS471J
R 351	(A,91,127)	RS1/16SS103J
R 352	(A,90,127)	RS1/16SS103J
R 353	(A,91,128)	RS1/16SS221J
R 401	(A,161,106)	RS1/16SS221J
R 402	(A,161,99)	RS1/16SS751J
R 403	(A,139,103) (A,B,C)	RS1/16SS152J
	(A,139,103) (D,E,F)	RS1/16SS331J
R 405	(A,142,99)	RS1/16SS105J
R 406	(A,137,96) (A,B,C)	RS1/16SS471J
	(A,137,96) (D,E,F)	RS1/16SS361J
R 407	(A,139,95)	RS1/16SS330J
R 408	(A,138,91) (A,B,C)	RS1/16SS681J
	(A,138,91) (D,E,F)	RS1/16SS391J
R 410	(A,136,79)	RS1/4SA8R2J
R 412	(A,137,84)	RS1/4SA8R2J
R 413	(A,145,107)	RS1/16SS105J
R 419	(A,139,70)	RS1/16SS103J
R 420	(A,141,70)	RS1/16SS103J
R 421	(A,153,79) (A,B,D,E,F)	RS1/16SS0R0J
R 427	(A,142,84)	RS1/16SS102J
R 428	(A,139,86)	RS1/16SS0R0J
R 431	(A,137,104) (A,B)	RS1/16SS0R0J
R 433	(A,141,90) (A,B,C)	RS1/16SS0R0J
R 434	(A,144,97) (D,E,F)	RS1/16SS0R0J
R 501	(A,22,119)	RS1/10SR471J
R 502	(A,24,117)	RS1/16SS6202D
R 503	(A,22,117)	RS1/16SS3601D
R 504	(A,20,119)	RS1/16SS1202D
R 505	(A,27,113)	RS1/16SS183J
R 506	(A,15,114)	RS1/16SS513J
R 508	(A,104,64)	RS1/16SS103J
R 551	(A,115,95)	RS1/16SS473J
R 552	(A,116,85)	RS1/16SS103J
R 553	(A,117,85)	RS1/16SS103J
R 556	(A,119,91)	RS1/16SS272J
R 557	(A,120,90)	RS1/16SS472J
R 558	(A,122,90)	RS1/16SS472J
R 559	(A,115,85)	RS1/16SS101J
R 560	(A,118,85)	RS1/16SS101J
R 601	(A,116,83)	RS1/16SS103J
R 602	(A,114,80)	RS1/16SS473J
R 603	(A,115,83)	RS1/16SS104J
R 604	(A,104,76)	RAB4CQ473J
R 607	(A,104,70)	RS1/16SS473J
R 608	(A,104,69)	RS1/16SS473J
R 609	(A,132,66)	RS1/16SS101J
R 610	(A,103,65)	RS1/16SS222J
R 611	(A,139,64)	RS1/16SS101J
R 612	(A,106,76)	RS1/16SS473J
R 613	(A,142,64)	RS1/16SS101J
R 615	(A,103,63)	RS1/16SS104J
R 617	(A,132,62)	RS1/16SS221J
R 619	(A,135,55)	RAB4CQ473J
R 620	(A,105,57)	RS1/16SS473J
R 621	(A,131,52)	RS1/16SS473J
R 622	(A,106,50)	RS1/16SS473J
R 623	(A,113,51)	RS1/16SS152J
R 624	(A,108,50)	RS1/16SS473J
R 626	(A,121,51)	RS1/16SS5601F
R 628	(A,127,51)	RS1/16SS103J
R 629	(A,106,54)	RS1/16SS102J
R 630	(A,125,50) (D,E,F)	RS1/16SS473J
R 631	(A,125,52) (A,B,C)	RS1/16SS473J

Circuit Symbol and No.		Part No.
R 632	(A,121,43)	RS1/16SS103J
R 633	(A,117,43)	RS1/16SS101J
R 636	(A,109,51)	RS1/16SS473J
R 642	(A,92,53)	RS1/16SS473J
R 651	(A,101,53)	RS1/16SS104J
R 671	(A,131,86)	RS1/10SR473J
R 672	(A,126,91)	RS1/10SR473J
R 701	(A,97,43)	RS1/16SS473J
R 702	(A,97,37)	RS1/16SS104J
R 703	(A,99,41)	RS1/16SS104J
R 704	(A,97,47)	RAB4CQ472J
R 707	(A,97,44)	RS1/16SS221J
R 708	(A,97,42)	RS1/16SS221J
R 709	(A,97,41)	RS1/16SS101J
R 710	(A,97,40)	RS1/16SS221J
R 711	(A,97,39)	RS1/16SS101J
R 712	(A,97,38)	RS1/16SS102J
R 713	(A,97,35)	RS1/16SS151J
R 714	(A,97,34)	RS1/16SS151J
R 715	(A,97,33)	RS1/16SS151J
R 716	(A,96,31)	RS1/16SS221J
R 717	(A,97,32)	RS1/16SS104J
R 751	(A,97,45)	RS1/16SS473J
R 752	(A,99,45)	RS1/16SS103J
R 753	(A,143,133)	RS1/10SR821J
R 801	(A,121,18)	RS1/10SR101J
R 802	(A,124,18)	RS1/10SR101J
R 803	(A,102,18)	RS1/10SR222J
R 804	(A,109,14)	RS1/10SR222J
R 805	(A,117,18)	RS1/10SR8R2J
R 806	(A,118,18)	RS1/10SR8R2J
R 807	(A,125,18)	RS1/10SR222J
R 808	(A,100,18)	RS1/10SR222J
R 809	(A,104,18)	RS1/16SS822J
R 810	(A,99,19)	RS1/10SR222J
R 811	(A,114,16)	RS1/10SR222J
R 812	(A,120,18)	RS1/10SR222J
R 813	(A,105,14)	RS1/10SR222J
R 815	(A,123,18)	RS1/10SR101J
R 816	(A,124,16)	RS1/16SS223J
R 817	(A,121,16)	RS1/16SS223J
R 818	(A,127,18)	RS1/10SR222J
R 851	(A,96,16)	RS1/16SS472J
R 871	(A,154,67)	RS1/10SR473J
R 872	(A,125,26)	RS1/16SS1R0J
R 874	(A,154,71)	RS1/16SS122J
R 875	(A,125,39)	RS1/16SS0R0J
R 877	(A,151,74)	RS1/16SS103J
R 885	(A,157,72)	RS1/16SS152J
R 891	(A,54,133)	RS1/10SR102J
R 892	(A,58,136)	RS1/10SR102J
R 911	(A,140,40)	RS1/10SR1R0J
R 912	(A,144,41)	RS1/10SR1R0J
R 931	(A,121,105)	RS1/16SS223J
R 932	(A,118,106)	RS1/16SS473J
R 933	(A,115,106) (A,B,D,E,F)	RS1/16SS472J
	(A,115,106) (C)	RS1/16SS473J
R 934	(A,115,113)	RS1/4SA102J
R 941	(A,112,105) (C)	RS1/16SS102J
R 942	(A,112,111) (C)	RS1/16SS223J
R 943	(A,111,111) (C)	RS1/16SS153J

CAPACITORS

C 201	(A,106,108) 10 uF	CCG1192
C 202	(A,100,105)	CCSSCH100D50
C 203	(A,103,108) 4.7 uF	CCG1201
C 204	(A,100,106)	CCSSCH100D50
C 205	(A,93,105)	CKSRYB105K10
C 206	(A,93,118)	CKSRYB105K10
C 207	(A,97,106)	CKSRYB105K10
C 208	(A,97,118)	CKSRYB105K10
C 209	(A,99,106)	CKSRYB105K10
C 210	(A,99,118)	CKSRYB105K10
C 211	(A,94,104)	CKSRYB105K10
C 212	(A,95,118)	CKSRYB105K10
C 213	(A,123,103) (C)	CCSSCH101J50
C 215	(A,102,107)	CCSSCH100D50
C 232	(A,144,52)	CKSSYB103K16
C 233	(A,149,54) 10 uF	CCG1192
C 234	(A,145,63) 10 uF	CCG1192
C 237	(A,148,60)	CCSRCH182J50
C 238	(A,149,64)	CCSRCH182J50
C 239	(A,147,58)	CKSSYB102K50
C 251	(A,31,129) 4.7 uF	CCG1201
C 252	(A,35,130) 4.7 uF	CCG1201
C 253	(A,31,126) 4.7 uF(A,B,D,E,F)	CCG1201
C 254	(A,35,127) 4.7 uF(A,B,D,E,F)	CCG1201
C 255	(A,20,130)	CCSSCH101J50
C 256	(A,28,130)	CCSSCH101J50
C 257	(A,10,129) (A,B,D,E,F)	CCSSCH101J50
C 258	(A,17,130) (A,B,D,E,F)	CCSSCH101J50
C 259	(A,33,135)	CKSSYB102K50
C 301	(A,74,128)	CKSRYB474K10
C 302	(A,81,128)	CKSRYB474K10
C 303	(A,76,128)	CKSRYB474K10
C 304	(A,79,128)	CKSRYB474K10
C 305	(A,74,131)	CKSRYB474K10
C 306	(A,81,131)	CKSRYB474K10
C 307	(A,76,131)	CKSRYB474K10
C 308	(A,79,131)	CKSRYB474K10
C 309	(A,135,134)	CKSRYB104K16
C 310	(A,83,128) 2.2 uF	CCG1205
C 311	(A,82,131) 2.2 uF	CCG1205
C 312	(A,98,127)	CKSRYB104K16
C 313	(A,67,128)	CEVW100M16
C 314	(A,61,135)	CCSSCH101J50
C 315	(A,84,130)	CCSSCH101J50
C 317	(A,62,136)	CCSSCK1R0C50
C 318	(A,107,129)	CCSRCH100D50
C 319	(A,103,129)	CCSRCH100D50
C 320	(A,96,133)	CCSRCH100D50
C 321	(A,92,136)	CCSRCH100D50
C 351	(A,93,127) 10 uF	CCG1192
C 401	(A,155,106)	CCSSCH330J50
C 402	(A,158,104)	CCSSCH6R0D50
C 403	(A,161,104)	CKSSYB103K16
C 404	(A,150,100)	CKSSYB104K10
C 405	(A,147,99)	CKSSYB104K10
C 406	(A,160,101)	CKSSYB103K16

Circuit Symbol and No.		Part No.
C 407	(A,148,100)	CKSSYB104K10
C 408	(A,141,107) (D,E,F)	CCSSCH150J50
C 409	(A,162,101)	CKSSYB103K16
C 410	(A,148,98)	CKSSYB103K16
C 411	(A,145,100)	CKSSYB103K16
C 412	(A,144,100) 10 uF	CCG1192
C 413	(A,155,101)	CKSSYB103K16
C 414	(A,152,102)	CKSRYB105K10
C 415	(A,141,99)	CKSSYB103K16
C 416	(A,159,96)	CKSRYB224K16
C 417	(A,160,95)	CKSSYB104K10
C 418	(A,139,98) 10 uF	CCG1192
C 419	(A,158,93)	CKSRYB105K10
C 420	(A,139,96)	CKSSYB104K10
C 421	(A,137,95) (A,B,C)	CCSSCH101J50
	(A,137,95) (D,E,F)	CCSSCH220J50
C 422	(A,140,92)	CKSSYB104K10
C 423	(A,136,95)	CKSSYB103K16
C 424	(A,162,91)	CKSSYB472K25
C 425	(A,162,92)	CKSSYB472K25
C 426	(A,158,90)	CKSSYB104K10
C 427	(A,138,90) (A,B,C)	CCSSCH820J50
	(A,138,90) (D,E,F)	CCSSCK2R0C50
C 428	(A,161,89)	CCSSCH9R0D50
C 429	(A,161,84)	CCSSCH9R0D50
C 430	(A,139,85) (A,B,C)	CKSRYB474K10
C 431	(A,158,84) (A,B,C)	CKSSYB104K10
C 432	(A,157,82) 2.2 uF(D,E,F)	CCG1205
C 433	(A,140,83) (D,E,F)	CKSSYB104K10
C 437	(A,156,81)	CKSSYB104K10
C 439	(A,145,79) (D,E,F)	CKSRYB104K16
C 440	(A,147,82)	CKSSYB104K10
C 441	(A,152,81) 2.2 uF	CCG1205
C 443	(A,145,104) (C,D,E,F)	CKSSYB103K16
C 444	(A,139,104) (D,E,F)	CCSSCH8R0D50
C 445	(A,142,101)	CKSSYB223K16
C 447	(A,142,85)	CKSSYB102K50
C 452	(A,134,90) (A,B)	CKSSYB105K6R3
C 455	(A,137,88) (A,B)	CCSSCH100D50
C 457	(A,139,89) (A,B)	CKSSYB105K6R3
C 458	(A,148,107) (A,B)	CCSSCJ3R0C50
C 503	(A,32,119)	CEVQW221M6R3
C 505	(A,11,119) Capacitor	CEVW221M16
C 506	(A,27,114)	CKSSYB153K16
C 508	(A,26,114)	CCSSCH220J50
C 509	(A,24,109)	CKSRYB105K16
C 510	(A,40,121)	CKSRYB105K10
C 512	(A,113,29)	CKSRYB105K10
C 551	(A,116,95)	CKSSYB104K10
C 552	(A,119,90)	CKSSYB104K10
C 601	(A,121,78)	CKSSYB104K10
C 602	(A,118,78)	CKSSYB104K10
C 603	(A,114,78)	CKSSYB104K10
C 604	(A,106,73)	CKSSYB104K10
C 605	(A,131,72)	CKSSYB104K10
C 606	(A,104,72)	CKSSYB104K10
C 607	(A,132,71)	CKSSYB104K10
C 608	(A,106,67)	CKSSYB104K10
C 609	(A,132,67)	CKSSYB104K10
C 610	(A,105,66)	CKSSYB104K10
C 612	(A,136,66)	CKSSYB104K10

Circuit Symbol and No.		Part No.
C 616	(A,105,62)	CKSSYB104K10
C 617	(A,133,63) (A,B,D,E,F)	CCSSCH100D50
C 618	(A,104,60)	CKSSYB104K10
C 619	(A,132,61)	CKSSYB104K10
C 620	(A,138,58)	CKSSYB104K10
C 621	(A,106,57)	CKSSYB104K10
C 622	(A,130,52)	CKSSYB104K10
C 623	(A,124,51)	CKSSYB104K10
C 624	(A,123,50)	CKSSYB104K10
C 625	(A,122,51)	CKSSYB104K10
C 626	(A,120,51)	CKSSYB104K10
C 627	(A,118,51)	CKSSYB104K10
C 628	(A,114,51)	CKSSYB104K10
C 629	(A,108,52)	CKSSYB104K10
C 630	(A,128,52)	CKSSYB104K10
C 632	(A,115,47)	CCSSCH120J50
C 633	(A,113,47)	CCSSCH120J50
C 638	(A,122,43)	CKSRYB105K10
C 651	(A,105,53)	CKSRYB105K10
C 671	(A,131,83)	CKSSYB104K10
C 701	(A,100,41)	CKSSYB103K16
C 751	(A,147,131) 10 uF	CCG1192
C 754	(A,141,135)	CKSSYB104K10
C 802	(A,93,20)	CKSRYB104K16
C 803	(A,90,14)	CKSRYB104K16
C 808	(A,113,18)	CKSRYB104K16
C 809	(A,125,9)	CKSRYB104K16
C 810	(A,100,15)	CCSRCH221J50
C 811	(A,98,13)	CCSRCH221J50
C 812	(A,123,12)	CKSRYB105K16
C 817	(A,108,17)	CKSSYB104K10
C 818	(A,124,6)	CKSRYB104K16
C 872	(A,154,69)	CKSRYB104K16
C 891	(A,34,139)	CKSRYB104K16
C 892	(A,50,138)	CKSRYB104K16
C 901	(A,133,124) 3 300 uF/16 V	CCH1732
C 913	(A,141,40)	CKSSYB102K50
C 914	(A,141,42) 4.7 uF	CCG1201
C 916	(A,150,41) 4.7 uF	CCG1201
C 917	(A,138,40) 4.7 uF	CCG1201
C 918	(A,153,42) 4.7 uF	CCG1201
C 919	(A,144,39)	CKSSYB102K50
C 920	(A,147,42) 4.7 uF	CCG1201
C 921	(A,133,39)	CKSRYB104K16
C 922	(A,157,54) (A,B,C)	CEAT102M16
	(A,157,54) 1 000 uF/16 V(D,E,F)	CCH2024
C 923	(A,154,40)	CKSSYB102K50
C 926	(A,133,41)	CKSRYB102K50
C 931	(A,114,105)	CKSRYB104K16

B

Unit Number : (A,B,D,E,F)
: (C)
Unit Name : Keyboard Unit

MISCELLANEOUS

IC 1801	(B,85,23) IC		PD6581A
IC 1802	(A,159,36) Remote IC(A,B,D,E,F)		GP1UXC14RK

Circuit Symbol and No.			Part No.
IC 1851	(B,66,16)	DAC	BU2507FV
Q 1851	(B,48,22)	Transistor	LSC4081UB
Q 1852	(B,28,30)	Transistor	LSC4081UB
Q 1853	(B,23,11)	Transistor	LSC4081UB
Q 1854	(B,18,24)	Transistor	LSC4081UB
Q 1855	(B,56,25)	Transistor	LSC4081UB
Q 1856	(B,48,19)	Transistor	LSC4081UB
Q 1857	(B,22,31)	Transistor	LSC4081UB
Q 1858	(B,19,8)	Transistor	LSC4081UB
Q 1859	(B,18,17)	Transistor	LSC4081UB
Q 1860	(B,59,25)	Transistor	LSC4081UB
Q 1861	(B,48,26)	Transistor	LSC4081UB
Q 1862	(B,15,26)	Transistor	LSC4081UB
Q 1863	(B,19,11)	Transistor	LSC4081UB
Q 1864	(B,18,21)	Transistor	LSC4081UB
Q 1865	(B,61,28)	Transistor	LSC4081UB
Q 1866	(B,55,16)	Transistor	LSC4081UB
Q 1867	(B,64,20)	Transistor	LSC4081UB
Q 1868	(B,64,23)	Transistor	LSC4081UB
D 1851	(A,50,20)	LED	SMLV56RGB1U1(Q)
D 1852	(A,112,6)	LED	SMLV56RGB1U1(Q)
D 1853	(A,21,20)	LED	SMLV56RGB1U1(Q)
D 1854	(A,64,21)	Chip LED	NSSM038A-6430
X 1801	(B,73,22)	Ceramic Resonator 5.00 MHz	CSS1547
S 1842	(A,36,20)	Encoder(ROTARY COMMANDER)	CSD1168
CN1821	(B,108,9)	Connector	CKS6287
CN1911	(A,154,22)	Connector	CKS6267
JA1921	(A,153,7)	Jack	CKN1090
V 1801	(A,138,32)	Segment LCD	CAW2018

RESISTORS

R 1801	(B,110,22)		RS1/10SR222J
R 1802	(B,117,21)		RS1/10SR222J
R 1803	(B,131,24)	(A,B,D,E,F)	RS1/10SR101J
R 1805	(B,74,17)	(C)	RS1/10SR473J
R 1822	(B,65,8)		RS1/10SR273J
R 1851	(B,58,13)		RS1/10SR102J
R 1852	(B,21,27)		RS1/10SR101J
R 1853	(B,21,29)		RS1/10SR181J
R 1854	(B,10,28)		RS1/10SR181J
R 1855	(B,23,14)		RS1/10SR101J
R 1856	(B,19,13)		RS1/10SR181J
R 1857	(B,10,18)		RS1/10SR181J
R 1858	(B,23,23)		RS1/10SR101J
R 1859	(B,15,22)		RS1/10SR181J
R 1860	(B,10,23)		RS1/10SR181J
R 1861	(B,59,21)		RS1/10SR101J
R 1862	(B,52,25)		RS1/10SR181J
R 1863	(B,52,28)		RS1/10SR151J
R 1864	(B,59,11)		RS1/10SR102J
R 1865	(B,19,31)		RS1/10SR101J
R 1866	(B,19,32)		RS1/10SR121J
R 1867	(B,10,30)		RS1/10SR221J
R 1868	(B,19,15)		RS1/10SR101J
R 1869	(B,15,8)		RS1/10SR121J
R 1870	(B,12,8)		RS1/10SR221J
R 1871	(B,15,16)		RS1/10SR101J
R 1872	(B,15,18)		RS1/10SR121J
R 1873	(B,10,19)		RS1/10SR221J
R 1874	(B,61,21)		RS1/10SR101J
R 1875	(B,54,25)		RS1/10SR181J
R 1876	(B,54,28)		RS1/10SR181J
R 1877	(B,58,15)		RS1/10SR102J
R 1878	(B,15,24)		RS1/10SR101J
R 1879	(B,10,27)		RS1/10SR181J
R 1880	(B,10,24)		RS1/10SR181J
R 1881	(B,12,10)		RS1/10SR101J
R 1882	(B,10,11)		RS1/10SR181J
R 1883	(B,10,13)		RS1/10SR181J
R 1884	(B,15,19)		RS1/10SR101J
R 1885	(B,15,21)		RS1/10SR181J
R 1886	(B,10,21)		RS1/10SR181J
R 1887	(B,62,25)		RS1/10SR101J
R 1888	(B,58,27)		RS1/10SR181J
R 1889	(B,56,28)		RS1/10SR181J
R 1890	(B,59,18)		RS1/10SR102J
R 1891	(B,61,18)		RS1/10SR102J
R 1892	(B,68,20)		RS1/10SR102J
R 1893	(B,65,10)		RS1/10SR222J
R 1894	(B,80,6)		RS1/10SR222J
R 1895	(B,80,8)		RS1/10SR222J

CAPACITORS

C 1801	(B,146,31)	10 uF(A,B,D,E,F)	CCG1192
C 1802	(B,97,23)		CKSRYB105K10
C 1851	(B,70,18)	2.2 uF	CCG1205
C 1852	(B,53,13)		CKSRYB104K16
C 1853	(B,131,6)		CKSRYB104K16
C 1854	(B,22,21)		CKSRYB104K16
C 1855	(B,68,23)		CKSRYB104K16
C 1856	(B,62,11)		CCSRCH100D50
C 1857	(B,89,8)		CCSRCH100D50
C 1858	(B,88,8)		CCSRCH100D50
C 1859	(B,61,11)		CKSRYB103K50
C 1863	(B,67,23)		CKSRYB104K16
C 1867	(B,70,23)		CKSRYB104K16
C 1911	(B,144,19)		CKSRYB104K16
C 1912	(B,133,28)		CKSRYB104K16

C

Unit Number : CWX4023
Unit Name : CD Core Unit (S11.6STD)

MISCELLANEOUS

IC 201	(B,23,37)	IC	PE5791A
IC 301	(A,37,11)	IC	BD8223EFV
Q 101	(B,11,53)	Transistor	2SA1577
Q 102	(B,15,54)	Chip Digital Transistor	LTA123JUB
X 201	(B,25,49)	Ceramic Resonator 16.934 MHz	CSS1603
S 901	(A,42,53)	Spring Switch(HOME)	CSN1080
S 903	(B,21,12)	Spring Switch(DSCSNS)	CSN1081
CN101	(A,16,58)	Connector	CKS4808
CN701	(A,25,29)	Connector	CKS6146

RESISTORS

Circuit Symbol and No.		Part No.
R 101	(B,6,57)	RS1/10SR2R4J
R 102	(B,8,57)	RS1/10SR2R4J
R 103	(B,9,57)	RS1/10SR2R7J
R 108	(B,18,55)	RS1/16SS105J
R 109	(B,12,50)	RS1/16SS222J
R 201	(A,24,11)	RS1/16SS0R0J
R 202	(A,23,9)	RS1/16SS0R0J
R 214	(B,18,28)	RS1/16SS103J
R 215	(B,17,28)	RS1/16SS393J
R 216	(B,12,35)	RS1/16SS122J
R 217	(B,10,32)	RS1/16SS562J
R 218	(B,10,35)	RS1/16SS472J
R 229	(B,12,34)	RS1/16SS471J
R 232	(A,31,54)	RS1/16SS0R0J
R 237	(B,33,45)	RS1/16SS221J
R 240	(B,34,40)	RS1/16SS473J
R 245	(A,34,46)	RS1/16SS104J
R 254	(A,37,56)	RS1/16SS104J
R 260	(B,30,27)	RS1/16SS103J
R 264	(A,22,9)	RS1/16SS102J
R 281	(B,33,38)	RS1/16SS560J
R 282	(B,33,39)	RS1/16SS560J
R 283	(B,35,38)	RS1/16SS0R0J
R 291	(B,33,34)	RS1/16SS560J
R 292	(B,33,36)	RS1/16SS0R0J
R 293	(B,35,39)	RS1/16SS0R0J
R 294	(B,27,48)	RS1/16SS471J
R 296	(B,34,43)	RS1/16SS0R0J
R 301	(A,27,9)	RS1/16SS0R0J
R 302	(A,28,9)	RS1/16SS0R0J
R 303	(A,27,11)	RS1/16SS123J
R 304	(A,28,11)	RS1/16SS123J
R 305	(A,26,9)	RS1/16SS102J
R 306	(A,26,11)	RS1/16SS472J
R 307	(A,25,9)	RS1/16SS102J
R 308	(A,25,11)	RS1/16SS472J
R 309	(A,35,6)	RS1/16SS473J
R 310	(B,30,9)	RS1/16SS472J
R 311	(B,30,10)	RS1/16SS472J
R 312	(B,30,11)	RS1/16SS472J
R 313	(B,30,12)	RS1/16SS472J
R 701	(A,21,38)	RS1/16SS101J
R 702	(A,23,38)	RS1/16SS101J
R 706	(A,32,42)	RS1/16SS221J
R 708	(B,28,26)	RS1/16SS0R0J
R 709	(B,29,28)	RS1/16SS0R0J

CAPACITORS

C 104	(B,12,57)	CKSQYB475K6R3
C 203	(B,22,47)	CKSSYB104K10
C 209	(B,28,47)	CKSRYB104K16
C 210	(B,33,43)	CKSSYB104K10
C 211	(B,33,41)	CKSSYB104K10
C 212	(B,22,28)	CKSSYB104K10
C 213	(B,18,26)	CKSSYB332K50
C 214	(B,17,26)	CKSSYB473K16
C 215	(B,19,28)	CKSSYB104K10
C 216	(B,12,33)	CKSSYB182K50
C 217	(B,10,34)	CCSSCH560J50
C 218	(B,10,36)	CCSSCH4R0C50
C 219	(B,14,34)	CKSSYB104K10
C 220	(A,18,38)	CKSSYB104K10
C 221	(B,14,32)	CKSSYB104K10
C 222	(B,13,37)	CKSSYB104K10
C 223	(B,12,42)	CCSSCH680J50
C 224	(B,13,45)	CCSSCH470J50
C 225	(B,13,46)	CKSSYB103K16
C 228	(B,10,33)	CCSSCH270J50
C 229	(B,9,40)	CKSSYB104K10
C 233	(B,32,46)	CKSSYB103K16
C 236	(B,8,40)	CKSSYB104K10
C 238	(A,25,44)	CKSRYB104K16
C 299	(A,26,41)	CKSSYB104K10
C 302	(B,28,12)	CKSSYB102K50
C 303	(B,29,12)	CKSSYB102K50
C 304	(B,27,12)	CKSSYB223K16
C 305	(B,26,12)	CKSSYB104K10
C 306	(A,31,7)	CKSSYB104K10
C 307	(A,41,19)	CKSRYB105K10
C 308	(A,31,15)	CKSRYB105K10
C 710	(A,34,42)	CKSSYB102K50

Miscellaneous Parts List

	Pickup Unit(P10.6)(Service)	CXX3556
M 1	Motor Unit(SPINDLE)	CXE2273
M 2	Motor Unit(LOADING/CARRIAGE)	CXC4026